
**TRADE FACILITATION IN SEAPORTS – A THOROUGH SURVEY OF THE GHANA GATEWAY
PROJECT**

LIVINGSTONE DIVINE CAESAR

A Dissertation Submitted in partial fulfilment of the requirements of the Netherlands
Maritime University for the degree of

Master Shipping and Transport

September, 2010

Netherlands Maritime University, LLOYSTRAAT 300, 3024 EA – ROTTERDAM

**TRADE FACILITATION IN SEAPORTS – A THOROUGH SURVEY OF THE GHANA GATEWAY
PROJECT**

SUPERVISOR

MR. CAS VAN DER BAAN

PREPARED BY:

LIVINGSTONE DIVINE CAESAR

NETHERLANDS MARITIME UNIVERSITY

LLOYSTRAAT 300, 3024 EA – ROTTERDAM

SEPTEMBER 2010

DECLARATION

This is to certify that the work submitted was carried out by the student – **Livingstone Divine Caesar**

Candidates Signature and Date

Supervisor's Signature and Date

DEDICATION

This research is wholeheartedly dedicated:

To Jesus Christ, true son of the Most High God – your grace is sufficient unto me

To my beloved wife, Mary Esi Quansah – behind every successful man is a strong woman

To my beloved Parents, Mr. Jacob Ofori Caesar and Ms. Gladys Kloteye – your love is unmatched

To my adorable siblings Joyce, Pearl, Randy, Priscilla and Paul – blood is thicker than water

To my beloved daughter, Josephine Oforiwa Caesar and my unborn children (posterity) – like arrows in the hands of a mighty warrior are sons born in one's youth.

ACKNOWLEDGMENTS

“Unless the Lord builds the house, its builders labour in vain. Unless the Lord watches over the city, the watchmen stand guard in vain”. – Psalm 127: 1-2

I am grateful to the **Almighty God** who in his infinite wisdom made it possible for me to undertake this thesis; but for his daily support, I would not have been able to put my pen to paper. To him be the glory, great things he has done for me.

I am grateful to **Mr. Freeman Augustine** who took time out of his busy schedule to assist me in the using of the SPSS Software package for the gathered data. I will forever remain indebted. I also extend my heartfelt gratitude to all executives of various freight forwarding firms and logistics firms who granted me audience to interview them; their kind gesture is highly appreciated.

I am highly indebted to **Mr. Cas Van Der Baan**, my thesis supervisor for his constructive criticism throughout the period of my research. His guidance played an instrumental role towards completion of the work; I am humbled by his fatherly approach. He took so much time to read through the work which is not a pleasant job to undertake. Sir, may my God richly bless you.

What is a student without the support of his/her lecturers? I am very grateful to all teaching staff at the Netherlands Maritime University (NMU) who in diverse ways contributed to the enrichment of my knowledge in maritime affairs – you will never be forgotten.

I want to make special mention of **Mr. Maurice Jansen** whose constant reminders and introductory lectures proved a catalyst to the completion of this study. It is not an easy task to keep reminding people about one subject for over a year. I am grateful to him.

The last but not the least, I am grateful to my lovely wife, **Mary Quansah**, for her unrivalled patience and understanding throughout the period of my study.

TRADE FACILITATION IN SEAPORTS – A THOROUGH SURVEY OF THE GHANA GATEWAY PROJECT

LIVINGSTONE DIVINE CAESAR

ABSTRACT

Trade liberalization has brought in its wake an unprecedented explosion in the volume of world trade. The advent of information technology coupled with containerization equally contributed and continues to fuel an upsurge in international cargo traffic. Over the last decade the importance of trade facilitation (TF) has increased dramatically; with the need to reduce transaction and administration cost as well as expedite cargo movement forming the core elements. The issue of trade facilitation leads to long-term benefit for individuals and businesses.

The need to cope with growing international competition has added more gravity to the relevance of trade facilitation in this era of globalization. The study dwelt on trade facilitation in the context of the Ghana Gateway Project (GGWP) – an undertaking by the Government of Ghana (GoG) which seeks to make Ghanaian seaports the gateway to West Africa, among other things.

The author argues that there are myriads of endogenous and exogenous variables which militate against trade facilitation in Ghana as the country is earnestly positioning itself to become a part of the global logistics network. It was found that corruption among trade-related institutions especially Customs Excise and Preventive Service (CEPS) has a huge bearing on realization of trade facilitation objectives under the Ghana Gateway Project (GGWP).

Also less focus on institutional bottlenecks under the project means that trade officials are increasingly becoming an obstacle rather than facilitators. Interviews and surveys carried out revealed how Customs officials have transmogrified into opponents of schemes that are instituted to reduce paperwork and duplication of effort within the country's cargo clearance system.

The research documents trends and gains with regards to trade facilitation programmes in Ghana. Relevant literatures were given exhaustive reviews with the aim of navigating all relevant elements that form part of trade facilitation.

Notable conclusions drawn at the end of the study were that; institutional failure, bribery and corruption, incompetence among stakeholders, lack of adequate control, etc are some of the challenges bedevilling the Ghana Gateway Project (GGWP).

The study also unearthed measures that must be implemented to help resuscitate the dwindling fortunes of trade facilitation initiatives in Ghana. The summary of recommendations given is found below:

- Establishing a credible system that will reward excellence among Customs officials and punish corrupt officials
- Massive investment in the human element of the Ghana Gateway Project (GGWP) by education and training
- Tightening control over the entry of people into the freight forwarding industry of Ghana by ensuring that they are adequately qualified
- Repeal the freight forwarding law SMCD 188 of 1978 to be in line with new trends on the global stage.

Livingston Divine Caesar

13th April, 2010

LIST OF FIGURES

Figure 1: Research Structure and Outline	23
Figure 2.1: Trade Facilitation: Cost of Infrastructure – A Seaport Cost Model	24
Fig. 2.2: Launching a Trade Facilitation Programme: Flow of Supportive Steps	25
Figure 2.3 Breakdowns of Shipping Costs	33
Figure 2.4 Logistics Performance Indicators (LPI)	34
Figure 2.5 Value of World Merchandise 2000-2008	37
Figure 3.1 Inward Transit Cargo Handled – Port of Takoradi (2002-2008)	41
Figure 3.2 Performances of Selected Low Income Countries	42
Figure 3.3 Ranking of Ghana in Trading across Borders - Compared to good practice and selected economies	43
Figure 3.4 Snapshot of the Ghana Gateway Project	44
Figure 3.5 Objectives of the GGWP	45
Figure 3.6 Ghana Railway Network	49
Figure 4.1 Conceptual Model: Institutions and the Mechanics of Trade Facilitation	52
Figure 4.2 Theses Theoretical Framework	54
Figure 5.1 a 5-Point Likert Scale	62
Figure 5.2 a 5-Point Likert Scale	68
Figure 5.3 Perception about corruption among customs, port officials and security agencies within Ghana's port industry over the last 3 years (2006-2009)	72
Figure 5.4 Forms of Bribery and Corruption in the Ghanaian Port Sector	75
Figure 5.5 General Issues and Challenges Confronting Ghana's Port Industry	78

LIST OF TABLES

Table 1 Example of Effects of Trade Facilitation Measures (TTCs)	29
Table 2 Examples of Trade Effects of Trade Facilitation	30
Table 3 Economy of Ghana - 2009 Performance	39
Table 4 Historical Data: Trading Across Borders in Ghana	43
Table 5 Achievement of the Ghana Gateway Project	47
Table 6 Components of the West Africa Transport and Transit Facilitation Project	48
Table 7 Steps to Execution of the Thesis	56
Table 8 Spectrum of Respondents by business sector	61
Table 9 Cross-tabulation (Type of Ownership)	61
Table 10 Descriptive Statistics - Arithmetic Mean	62
Table 11a Kendall's W Test: (H_1)	63
Table 11b Kendall's Mean Ranks: (H_1)	63
Table 12a Kendall's Mean Ranks: (H_2)	64
Table 12b Kendall's W Test: (H_2)	64
Table 13a Friedman Test-Mean Ranks: (H_3)	65
Table 13b Friedman Test - Mean Ranks: (H_3)	66
Table 14a Kendall's Mean Ranks: (H_4)	67
Table 14b Kendall's W Test (H_4)	67
Table 15 Descriptive Statistics - Arithmetic Mean	68
Table 16a Kendall's Mean Ranks: (H_6)	69
Table 16b Kendall's W Test: (H_6)	69
Table 16c Kendall's Mean Ranks: (H_6)	70

Table 17a Kendall's Mean Ranks: (H_7)	71
---	----

Table 17b Kendall's W Test: (H_7)	71
---------------------------------------	----

ABBREVIATIONS

APM – Arnold Peter Moeller

CEPS – Customs Excise and Preventive Service

CILT – Chartered Institute of Logistics and Transport

DIC – Destination Inspection Company

DIS – Destination Inspection Scheme

ECOWAS – Economic Community of West African States

FCFA – France CFA

FDI – Foreign Direct Investment

GCNet – Ghana Community Network

GDP – Gross Domestic Product

GFC – Ghana Forestry Commission

GGWP – Ghana Gateway Project

GIFF – Ghana Institute of Freight Forwarders

GoG – Government of Ghana

GPHA – Ghana Ports and Harbours Authority

GRA – Ghana Revenue Authority

GSA – Ghana Shippers' Authority

GSB – Ghana Standards Board

ICS – Institute of Chartered Shipbrokers

ICT – Information Communication Technology

IFC – International Finance Corporation

IMF – International Monetary Fund

ISO – International Standards Organization

LPI – Logistics Performance Index

MDAs - Ministries Departments and Agencies

MOTI - Ministry of Trade and Industry

MPS – Meridian Port Services

OECD – Organization for Economic Co-operation and Development

PDO – Project Development Objective

PNDC – Provisional National Defence Council

PSI – Pre-shipment Inspection

SFO – Serious Fraud Office

SMCD – Supreme Military Council Decree

SPSS - Statistical Package for Social Science

STTV - Satellite Transit Truck Village

TEU – Twenty Equivalent Units

TTCs – Trade Transaction Costs

UK – United Kingdom

UNCTAD – United Nations Conference on Trade and Development

USAID – United States Agency for International Development

WCO – World Customs Organization

WTO – World Trade Organization

APPENDICES

Appendix 1: The normal manual cargo clearance system in Ghana (prior to electronic clearance era)

Appendix 2: The electronic cargo clearance system - GCNet (post-manual clearance system era)

Appendix 3: The Research Questionnaire

Appendix 4: Research Covering Letter (distributed alongside the questionnaire to respondents)

Appendix 5: Map of Ghana showing the location of seaports, main transport infrastructure, surrounding countries and main border crossings

Appendix 6: Satellite Tracking System for Transit Goods – for quick transit time

Appendix 7a: Cross-tabulation of the business sector

Appendix 7b: Business sector cross-tabulation

Appendix 7c: Business sector cross-tabulation

Appendix 7d: Business sector cross-tabulation

TABLE OF CONTENTS

DECLARATION	3
DEDICATION	4
ACKNOWLEDGEMENTS	5
ABSTRACT	6
LIST OF FIGURES	8
LIST OF TABLES	9
ABBREVIATIONS	11
APPENDICES	13
CONTENTS	14
CHAPTER 1 INTRODCUTION	18
1.1 BACKGROUND TO THE RESEARCH	18
1.2 RESEARCH PROBLEM AND OBJECTIVES	19
1.3 JUSTIFICATION FOR THE RESEARCH	20
1.4 SCOPE AND LIMITATIONS OF THE ENQUIRY	21
1.5 RESEARCH STRUCTURE AND OUTLINE	22
SUMMARY	23
CHAPTER 2 LITERATURE REVIEW	24
2.1 INTROUCTION	24
2.2 TRADE FACILITATION-ELEMENTS	24
2.3 RELEVANT WORKS AND THEORIES	26
2.3.1 The Cost Factor	26
2.3.1.1 Border-Related Costs	26
2.3.1.2 Transport Costs	27
2.3.2 Institutions – Reforms	27
2.3.3 Customs and Excise	28
2.3.4 Economic Impact- Benefits	29

2.4 THE GENERAL TREND IN PORT TRADE FACILITATION AND GEO-SPATIAL ISSUES	30
2.5 POOR TRADE FACILITATION AT PORTS AND BORDERS	32
2.5.1 Measuring Delays and Costs	35
2.6 INTERNATIONAL TRADE	36
2.7 SUMMARY	37
CHAPTER 3 TRADE FACILITATION- A GLIMPSE INTO THE GHANAIAN PORT INDUSTRY	39
3.1 INTRODUCTION	39
3.2 OVERVIEW OF GHANA’S ECONOMY	39
3.3 THE PORT INDUSTRY OF GHANA	40
3.3.1 Port of Tema	40
3.3.2 Port of Takoradi	41
3.3.3 Trading Through Ghanaian Ports – The Cost and Performance Element Comparison	41
3.4 TRADE FACILITATION INITIATIVES IN GHANA	44
3.4.1 The Ghana Gateway Project (GGWP)	44
3.4.1.1 Background	45
3.4.1.2 Objectives	45
3.4.1.3 Stakeholders	45
3.4.1.4 Achievements/Gains	46
3.4.1.5 Challenges	47
3.4.2 Other Initiatives	48
3.4.3 Port – Hinterland Connections and Competition in West Africa	49
3.5 SUMMARY	50
 CHAPTER 4 RESEARCH METHODOLOGY: THEORETICAL FRAMEWORK AND RESEARCH DESIGN	 51
4.1 INTRODUCTION	51
4.2 THE CONCEPTUAL MODEL	51
4.3 RESEARCH METHODOLOGY – PREFERENCES	53

4.4 JUSTIFICATION OF DATA COLLECTION METHODOLOGY	55
4.5 RESEARCH PROCEDURES AND SAMPLING: Steps to Execution of the Thesis	56
4.5.1 Selecting Sample Population	57
4.5.2 Sampling Methods: - Probability Sampling	57
4.5.3 Non-Probability Sampling	57
4.5.3.1 Purposive Sampling	57
4.6 DATA REQUIRED: - Secondary and Primary Data	58
4.7 DESIGNING QUESTIONNAIRE	58
4.7.1 Pre-testing questionnaire	59
4.8 ANALYTICAL METHODOLOGIES	59
4.9 SUMMARY	60
CHAPTER 5 ANALYSIS OF DATA AND RESULTS	61
5.1 INTRODUCTION	61
5.2 RESPONSE RATE	61
5.3 Data analysis and testing of hypotheses	62
5.3.1 Testing of hypothesis (H_1)	62
5.3.2 Testing of hypothesis (H_2)	63
5.3.3 Testing of hypothesis (H_3)	65
5.3.4 Testing of Hypothesis (H_4)	66
5.3.5 Testing of Hypothesis (H_5)	67
5.3.6 Testing of Hypothesis (H_6)	69
5.3.7 Testing of Hypothesis (H_7)	70
5.3.8 Testing of Hypothesis (H_8)	71
5.4 DISCUSSION OF FINDINGS	73
5.4.1 Institutional failure – its role in the GGWP’s underperformance	73
5.4.2 Bottlenecks within the Ghana Gateway Project (GGWP)	73
5.4.3 The GGWP – Perceptions and Expectations of Respective Stakeholders	74

5.4.4 The GGWP – Focus on Systems (infrastructure) rather than Institutions	75
5.4.5 Impact of the Attitude of Trade Officials on Cargo Flow and Overall Port Performance	
5.4.6 Trade Facilitation and Institutional Efficiency	77
5.5 LIMITATIONS	77
5.6 THE GENERAL ISSUES AND CHALLENGES CONFRONTING GHANA’S PORT INDUSTRY	78
5.7 SUMMARY	79
CHAPTER 6 CONCLUSIONS AND RECOMMENDATIONS	80
6.1 INTRODUCTION	80
6.2 CONCLUSIONS	80
6.3 RECOMMENDATIONS	80
6.4 COMMENTS FOR FURTHER RESEARCH	84
BIBLIOGRAPHY	85
APPENDICES	87

CHAPTER 1**INTRODCUTION****1.1 BACKGROUND TO THE RESEARCH**

Until the last quarter of 2008, the world economy has been experiencing an unprecedented explosion in trade. The volume of goods moving across borders increased exponentially due to the global integration of modern production systems, emergence of electronic commerce and the revolution that containerized transport has bestowed on international distribution of goods. The world economy took an upturn since 2002; with global Gross Domestic Product (GDP) growing at an average 2.85% per annum (WTO, IMF Economic Outlook, 2002-2005). Growing global demand has led to consistent rise in the world trade and output.

Indeed, the value of international trade was 50 times higher in 1999 than it was in 1960. The volume of world seaborne trade is directly linked to the growth of the world economy (Kumar, 2002; Jansson and Shneerson, 1987). Since the beginning of 2010, the world economy has been picking up from the doldrums and this means that cargo traffic will increase to new proportions worldwide. The overall dramatic increase in volume and complexity of world trade underlines the essence of trade facilitation and why programmes aimed at ensuring the quick transfer of goods across frontiers must be pursued with the requisite level of commitment by all stakeholders.

In a narrow sense, trade facilitation efforts simply address the logistics of moving goods through ports or more efficiently moving documentation associated with cross-border trade. The spectrum of recent definitions have been broadened to embrace the environment in which trade transactions take place, that is, the transparency and professionalism of customs and regulatory environments, harmonization of standards and compliance with international regulations.

The research focuses on the facilitation of trade at Ghanaian seaports. It discusses the challenges which the ports, logistics service providers, traders, manufacturers, shipping companies and hinterland users (Burkina Faso, Mali, etc) face as the country (Ghana) aspires to make its ports the most preferred within the West Africa sub-region. The discussions also dwell on factors which prevent stakeholders from reaping the full benefits that trade facilitation initiatives like the Ghana Gateway Project (GGWP) is designed to achieve.

In the year 2000, the Government of Ghana switched from Pre-shipment Inspection (PSI) for goods entering the country to Destination Inspection Scheme (DIS). This move formed part of a programme christened the Ghana Gateway Project. The Gateway Project was purposely launched to facilitate trade as well as improve Customs and Excise efficiency in Ghanaian seaports. It was also aimed at reducing the cost of doing business for traders. The study examines the extent to which the needs of traders have been met under GGWP. It also examines the factors which hinder the full realization of goals that were set under the project.

Since its inception, the GGWP project in relation to numerous complaints by stakeholders has failed in meeting the objectives for which it was designed (*refer to section 3.3.1.2 for full objectives of the GGWP*). Adequate discussions have been made on complaints of stakeholders within the Ghanaian port industry in relation to trade facilitation and other cross border trade challenges. The prospects and opportunities that exist for trade facilitation in Ghana have been examined. Also, the extent to which oil discovery in Ghana will influence trade facilitation programmes like the GGWP is also analyzed. The study ends with plausible recommendations on what should be done to enable the GGWP meets its full objectives.

1.2 RESEARCH PROBLEM AND OBJECTIVES

The problem to be addressed by this research is: *“How the Ghana Gateway Project could be nurtured into a revival (towards reaching its goal of facilitating efficiency in trade & shipping in Ghanaian seaports) to adequately reach the goals for which it was initiated”*.

The research is guided by objectives (Saunders et al., 2003) which are:

- To indentify the challenges that confront users of Ghanaian seaports and investigate why the Ghana Gateway Project (GGWP) which is touted as panacea to trade flow problems within the country’s port sector, failed (inability to fully facilitate trade).
- To establish any differences in the perception of traders and institutions that implements the GGWP with regards to its performance. Provide suggestions on what can be done to enhance trade flow within the Ghanaian port sector.
- Analyze the GGWP to ascertain whether it was the most plausible alternative for efficient cargo flow within the port sector and the prospects of trade facilitation in Ghana.

In order to investigate the research problem, the following research “gaps” were identified. The researcher hypothesised the research “gaps” and designed research questions to test them. The research hypotheses are as follow:

- **H1** Institutional failure is more to be blamed for the GGWP’s underperformance (that is inability to fully meet the original objectives).
- **H2** There is not much difference between the Pre-GGWP and Post-GGWP bottlenecks; and the human element is an underlying factor.
- **H3.** There is a significant association between achievements chalked under the GGWP and the perceptions and expectations of respective stakeholders (logistics service providers, hinterland users, shippers, freight forwarders, MDAs, etc).
- **H4** Lack of Training for Personnel at the helm of affairs has a bearing on trade facilitation through Ghana’s Port system.
- **H5** Under the GGWP there is objectively, an overwhelming focus on systems (infrastructure) rather than the institutions that steer these systems.
- **H6** There is a degree of relationship between the attitude of trade officials and cargo flow in Ghanaian ports and the overall port performance (efficiency).

- **H7** The success of trade facilitation programmes in developed economies is the product of institutional efficiency and focus on the human element (training and upgrading of responsible officials)
- **H8** Corruption among Customs Officials, Security Agencies and Port Officials is also causing problems for the Ghana Gateway Project.

1.3 JUSTIFICATION FOR THE RESEARCH

The exchange of goods i.e. trade is fundamental to the economic development of every country. Trade facilitation enhances the rate at which goods are exchanged and this will eventually lead to attraction of cargo traffic through a particular trade corridor.

Trade facilitation can lead to direct benefits to governments and the business community. Government benefits include: increased effectiveness of control methods; more effective and efficient deployment of resources; correct revenue yields; improved trader compliance; accelerated economic development; and encouragement of foreign investments. Benefits to traders include: reduced costs and less delays; faster customs clearance and release through predictable official intervention; simple commercial framework for doing both domestic and international trade; and enhanced competition (Economic Commission for Africa, 2004).

There is a strong positive causal link between improvement in trade facilitation with trade flows and government revenue; mostly for developing countries by implementing customs modernisation programmes that result in more efficient collection of trade taxes (OECD, 2005c). In Ghana, trade facilitation at the seaports is very important because over 60% of the country's internally generated revenue is derived from indirect taxes on goods that are channelled through the Ports of Tema and Takoradi. This means that a study on trade facilitation is of immense relevance to ascertain why an initiative like the GGWP that has the potential of increasing Government revenue through increased trade flow has not been able to achieve the set objectives. If trade can be made to flow with minimum disruptions without many bottlenecks, targeted revenue is obtainable for national growth. In other words, much revenue can be collected by the Customs Excise and Preventive Service (CEPS) on seaborne trade in Ghana, than it is currently doing if trade flow can be improved within the port sector.

In 1999, the overall lost revenue per year in eight ECOWAS member countries due to poor trade facilitation practices some of which are even illegal was estimated at 2 billion FCFA (Economic Commission for Africa, 2004). Transit cargo meant for neighboring hinterland countries (Mali, Niger and Burkina Faso) can be attracted to Ghanaian ports when trade facilitation initiatives are able to work effectively. This is very important if the Government of Ghana's aim of transforming Ghanaian ports into the most preferred in the region will materialize.

The study is also justified in the fact that it will assist Ghana to effectively integrate itself into the international transport chain and give more credence to the country's drive towards the achievement of a regional trade hub status. Subramanian and Matthijs (2007)

identify five critical factors for effective participation in global network trade: price, speed-to-market, labour productivity, flexibility and product quality. Speed-to-market crucially depends upon the quantity and quality of trade and trade-related institutions and physical infrastructure. This means that it is critical to have modernized and efficient trade facilitating institutions and physical infrastructure; to be able to compete successfully in global markets where value is increasingly placed on fast order-to-delivery cycles. And fast order-to-delivery cycle is impossible without efficient trade facilitation machinery in place.

The relevance of this study is further crystallized by impending demands that oil discovery will place on the country's existing port infrastructure. Ghana will begin to drill oil around the 3rd quarter of 2010 and this call for an urgent survey of how relevant authorities within the country's port industry can ensure that trade flows through the main ports of Tema and Takoradi unhindered. There is no doubt that oil discovery places much pressure on port systems as well as facilities; and Ghana will be no exception. An example can be cited of what transpired in Nigeria during the early 1970s, as their ports were placed under serious pressure from congestion which was triggered by a booming oil trade. Hence this particular problem is of huge interest to policy makers and investors. It is not only important to investors but also to those already operating within the Ghanaian Shipping sector, more importantly the Government of Ghana.

An inefficient port system in Ghana will not be of benefit to the country only, but other landlocked neighbours like Burkina Faso, Niger and Mali who use the ports of Tema and Takoradi to import and export. In a situation where seaports in Ghana are inefficient, insecure and slow, the landlocked countries using these ports are bound to suffer as their exports will be unable to arrive in the international market on time and at competitive cost.

The reform of customs and port administrative processes is essential to Ghana's objective of becoming an important trade and investment centre (World Bank 1998).

1.4 SCOPE AND LIMITATIONS OF THE ENQUIRY

The research contains essentially different views of the principal users of ports and related services in Ghana. This include shippers, freight forwarders, liner shipping companies, logistics service providers, hinterland users (Burkina Faso, Mali, etc), ports and terminal operators and other stakeholders. The views may be subjective. As much as possible, the literature covers the relevant subject areas. However, the author's limited knowledge may have a bearing on the research. The principal limitations of this study include: personal skill set as interviewer/observer, personal bias, difficulty in securing face-to-face interviews and unwillingness of audience to render requisite data.

Also, the function of time can be listed among the limitations of this research; there was limited time to gather and organize adequate research data. This has contributed to the narrowing down of the research population to a small size. The research sample is therefore small. This may result in sampling bias which can affect the data analysis.

It is very difficult to arrange face-to-face interviews in Ghana. After arranging interview with the manager or Chief Executive Officer of an establishment, it is likely that you may not be able to see him/her on the agreed date due to office engagements or unwillingness of subordinates to allow the researcher to meet the interviewee. All these and many unpleasant incidents contributed to limiting the scope of this research.

To add, valid data response rate is very appalling and abysmally low; this may affect the final analysis. At one instance, the respondents from Trade Facilitation Division of the Ministry of Trade and Industry (MOTI) declined to grant the researcher interview and answer the questionnaire. The data therefore cannot be said to be a collective representation of the entire spectrum of stakeholders within the Ghanaian port industry.

1.5 RESEARCH STRUCTURE AND OUTLINE

The research structure is aimed at presenting a more vivid and picturesque view of how the study outline looks like with detailed description of respective chapters and what readers should expect.

The research is organized and delineated into six chapters:

The present chapter (i.e. Chapter 1) is introductory in essence as it discusses among other things the research problem, objectives and limitations of the enquiry.

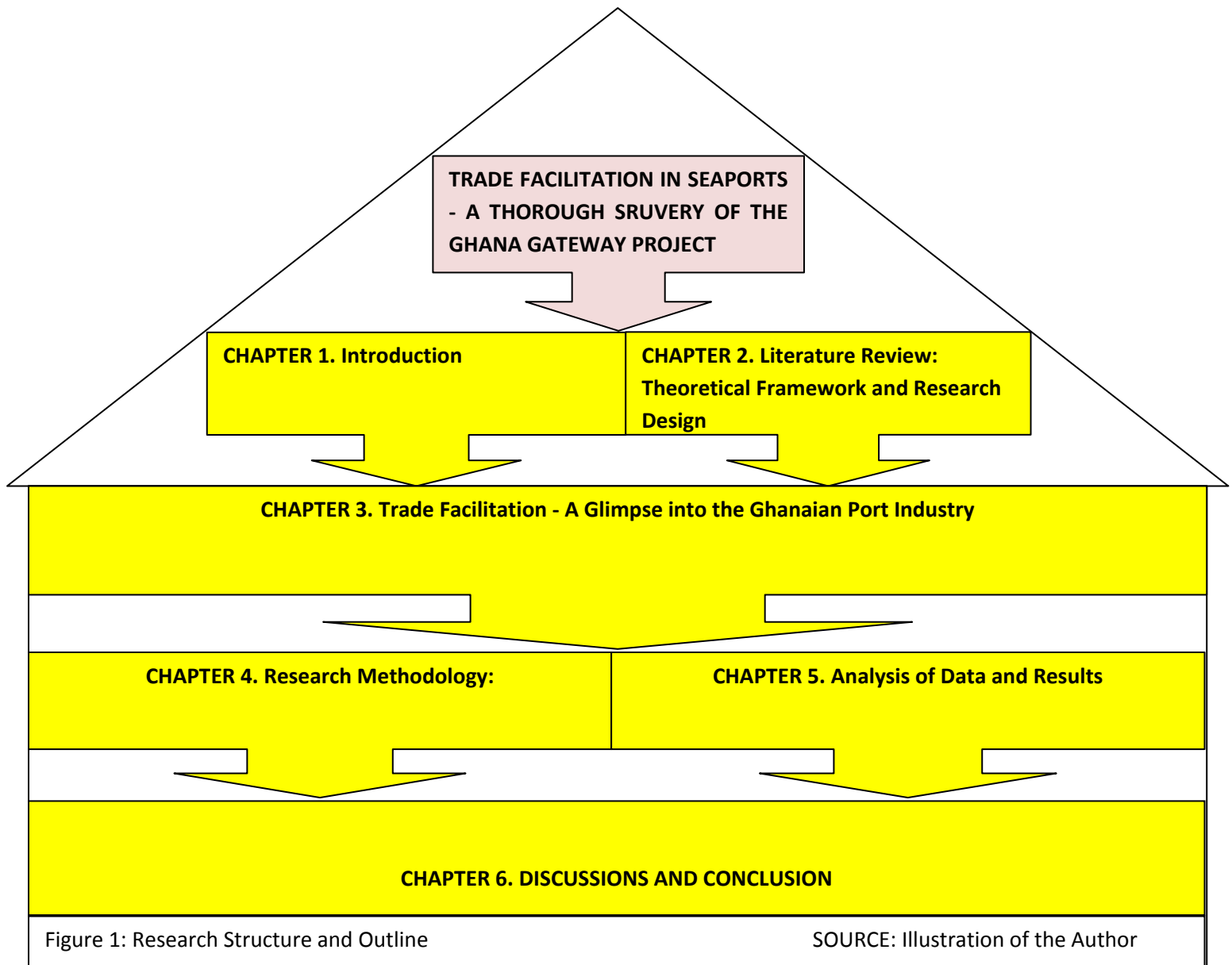
Chapter 2 examines the extant literature review in a cogent and logical manner. The benefits of trade facilitation has been delved into with a cursory look at the elements of poor trade facilitation. The impact of Geo-Spatial issues on port expansion project and infrastructure was also discussed under this chapter.

In Chapter 3, the author provided a thorough survey of the Ghanaian Port Industry. A mention was made of principal trade facilitation initiatives in Ghana and the challenges bedevilling such programmes. A detailed account was given on the Ghana Gateway Project (GGWP) including its current status.

Chapter 4 entail discussions on the research hypotheses, conceptual framework and the research methodology. The theoretical framework and research design are also outlined in this chapter.

Chapter 5 presents the research analysis and testing of the research hypotheses.

In Chapter 6 we see discussion of the research findings and summary of the main conclusions as well as recommendations. The chapter also acknowledges the need for further research.



1.6 SUMMARY

The background of the study has been examined. It was noted among other things that efficient trade facilitation creates an enabling environment for cross border trade and culminates into long-term profitability for all stakeholders. The research problem, objectives and hypotheses have also been discussed. Essentially, low response rate is the major limiting factor of the enquiry. The next chapter will examine the relevant literature review.

CHAPTER 2 LITERATURE REVIEW

2.1 INTROUCTION

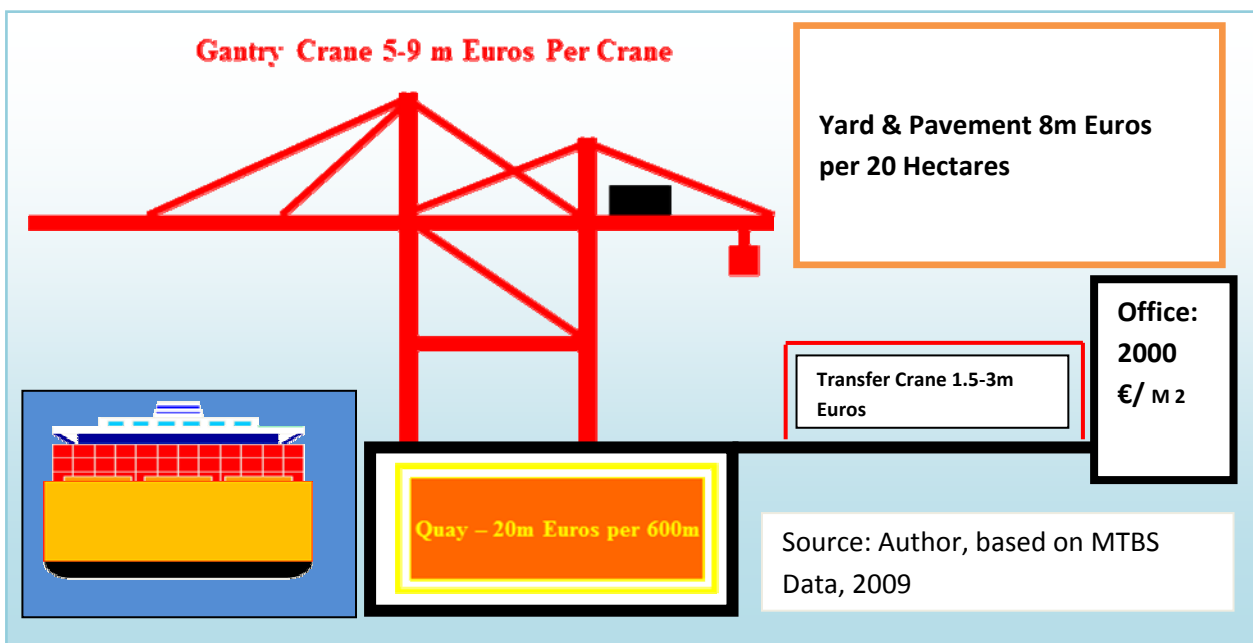
In the previous chapter the background and research problem and objectives of the study were examined. The scope and limitations of the enquiry as well as structure of the report were also presented. The present chapter examines the extant literature review, coalescing relevant information regarding trade facilitation in seaports as well as theories in a cogent and logical manner.

2.2 TRADE FACILITATION-ELEMENTS

Trade facilitation is defined to imply *“improved efficiency in the administration, procedures, and logistics at ports and customs points”* (Woo and Wilson, 2000). A broader definition includes streamlined regulatory environments, deeper harmonization of standards, and conformance to international regulations. The WTO website defines trade facilitation as *“the simplification and harmonisation of international trade procedures ... for collecting, presenting, communicating and processing data required for the movement of goods in international trade”*.

The research examines trade facilitation in the context of reactions between institutional and infrastructural factors. In 2007, Francois and Manchin referred to institutional factors (i.e. customs efficiency, transparency and reforms) as “soft” infrastructure. One of the most important elements of trade facilitation is infrastructure: port facilities, highways, railway network, communications, inland clearance depots, information technology, etc. In their treatise *“Geographical Disadvantage, Transport Costs and Trade”*, Limao and Venables were of the view that infrastructure is an essential determinant of transport costs; hence facilitation of trade is needed if stakeholders of trade, especially landlocked countries are to make meaningful benefits out of foreign trade. Figure 2.1 illustrates the basic cost of infrastructure, using the Port model as an example.

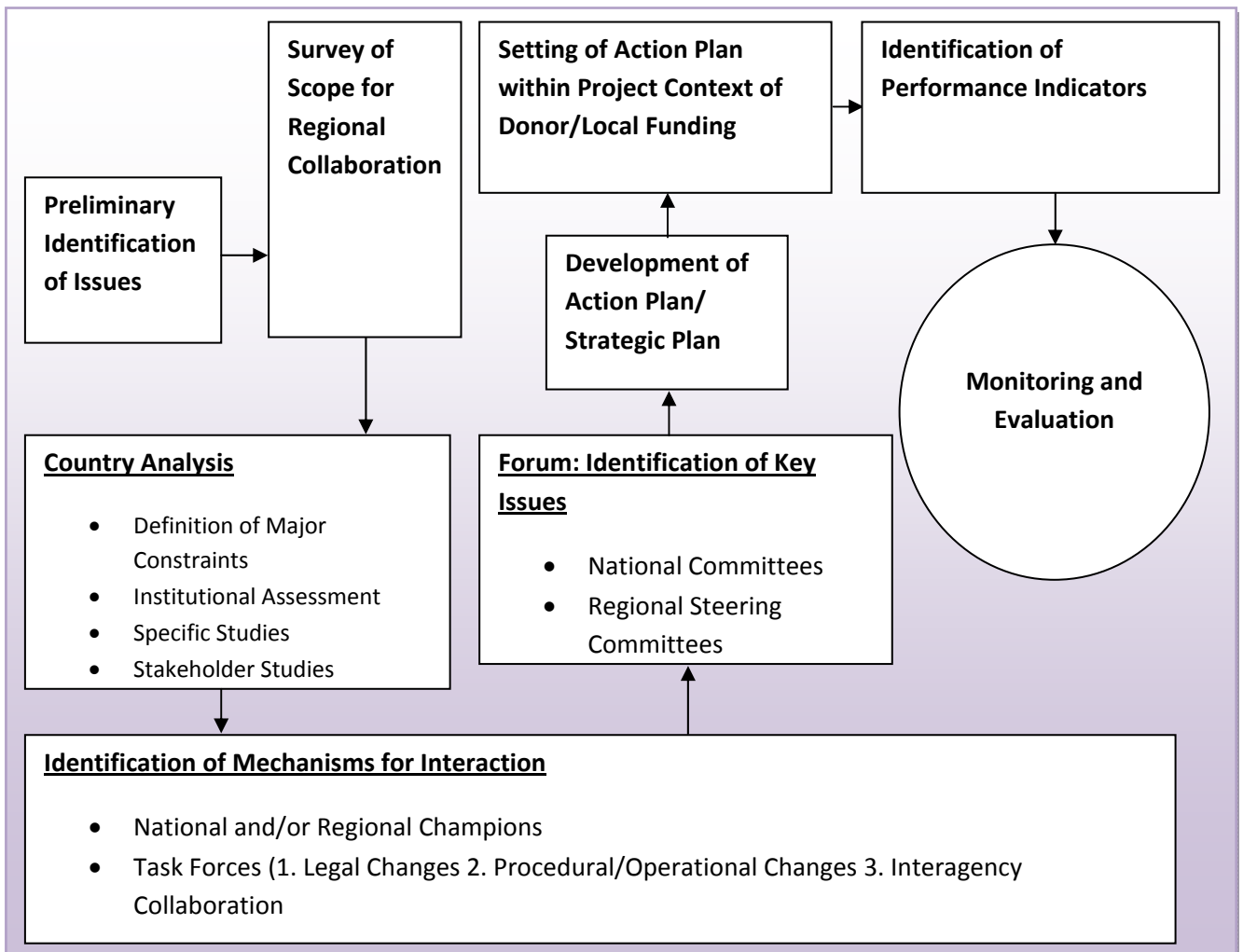
Figure 2.1: Trade Facilitation: Cost of Infrastructure – A Seaport Cost Model



To further prove the importance of infrastructure in meeting trade facilitation objectives with regards to cost reduction, Limao and Venables discovered after analysis of bilateral trade data that a deterioration of infrastructure from the median to the 75th percentile raises transport costs by 12 percentage points and reduces traded volumes by 28 percent. Also it was found that the low level of trade flow in African countries is largely attributable to poor infrastructure; a phenomenon that explains the steadily declining trend of Sub-Saharan Africa's share in global trade.

If infrastructure which forms an integral part of trade facilitation is capable of increasing trade volume as indicated by Limao and Venables, then the biggest question will be why developing countries like Ghana have not used that to their advantage. It became clear during the study that apart from the traditional hindering factors (huge capital investments and technical ability), institutional bottlenecks has stifled numerous trade facilitation initiatives in African countries. When launching trade facilitation programmes it is important to employ tested techniques and processes to ensure its success. Figure 2.2 illustrates the relevant steps that such projects should follow to deliver success.

Fig. 2.2: Launching a Trade Facilitation Programme: Flow of Supportive Steps



Source: Data – <http://www.seerecon.org>; Illustration – Author

2.3 RELEVANT WORKS AND THEORIES

Cross border trade (international trade) is a complex web of units that need meticulous blending to achieve the desired results and the same can be said of its facilitation. In case of the latter, the study will outline and discuss empirical works that cover pertinent issues like the following: The Cost Factor, Institutions-Reforms, Customs and Excise, Economic Impact-Benefits, among others.

2.3.1 The Cost Factor

Trade costs can be broadly defined to encompass all costs incurred in getting a final good to a final user—other than the cost of producing the good itself (Alberto Portugal-Perez John S. Wilson, 2008). International trade involves transaction costs; while these costs are essentially unavoidable, it is possible to reduce the level of costs (or the inefficiencies that effectively increase costs), so that some excess costs are avoidable. Any savings of such avoidable transaction costs are savings which can have a big impact directly, and through the dynamic effects of chain linkages (Milner, Morrissey and Zgovu, 2005).

The cost factor is a highly essential element of international trade; with costs related to transport and time being the most damaging. Trade facilitation programmes are aimed at exploiting plausible benefits that exist for all stakeholders should they become successful; however administrative and transaction costs associated with the trade process can erode any chance of meeting such an objective. In Ghana, trade facilitation initiatives like the Ghana Gateway Project (GGWP) led to privatization of handling operations at the port of Tema. Interviews granted the author by importers indicated that the levying of illegal charges by stevedores has led to drastic increase in the cost of doing business at the port. Most of the literature that was perused on this subject did not give information about 'hidden' costs which are paid at the ports of several West African countries including Ghana, as a result of bribery and corruption, ignorance, etc.

A classification of the different types and sources of trade costs can be performed in several ways. In *Why Trade Facilitation Matters to Africa*, Portugal-Perez and Wilson placed trade cost in four categories: Border-Related Costs, Transport Costs, Behind-the-Border Issues and Other Sources of Costs, Information and Communication Costs.

2.3.1.1 Border-Related Costs

As goods enter a country, they are subject to a variety of trade policy barriers that increase the costs of trading. Trade policy barriers increase the costs of exported goods abroad and the costs of importing goods. Ng and Yeats (1996) argue that the drastic decline in African exports has been related to closed trade regimes in Sub-Saharan Africa.

It is very important to note that as far as border-related costs are concerned, Customs and Excise who are expected to become facilitators of trade end up creating costs for traders at the borders and ports of their respective countries. For example, Djankov, Freund, and Pham (2008) found that each day of delay at customs is equivalent to a country distancing itself from its trading partners by an additional 85 km. It therefore means that simple and

transparent customs procedures will eventually help to reduce the amount of time needed to clear a consignment.

Among the papers that have found evidence as to the negative effects of standards on trade from African countries, Otsuki et al. (2001) examined the impact of European aflatoxin standards on African groundnut exports. They find that a 10 percent increase in restrictiveness is associated with a fall in trade volume of about 11 percent.

2.3.1.2 Transport Costs

Transport costs also matter to trade and therefore amenable to addressing under trade facilitation initiatives. Poor road infrastructure represents 40 percent of the transport costs predicted for coastal countries and 60 percent for landlocked countries, which is especially relevant for African countries where transport costs seem to be particularly high because of location and poor infrastructure (Limao and Venables 2000). Studying primary international corridors in Africa, Teravaninthorn and Raballand (2008) argue that the transport prices charged to end-users in Africa are relatively high compared with prices in developed countries and most developing countries.

2.3.2 Institutions-Reforms

Institutions like Customs and Excise form the bedrock of implementation with regards to trade facilitation initiatives. The success of implementation will be influenced by the degree of transparency and corruption existing in the environment that these institutions operate in. Quite recently, we have seen a handful of researches dedicated to studying the impact that institutions have on trade.

Weak institutions act as significant barriers to international trade (Anderson and Marcouiller 2002). Weak institutions are evident in widespread corruption at various points in the supply chain (Gatti, 2004).

Empirical evidence culled from Gatti, 2004 strongly supports the view that trade costs are an important determinant of extortion and evasion behaviours. Gatti (2004) uses data on corruption and trade policy to show that higher trade costs—in this case, tariff rates—are indeed associated with a higher level of corruption.

It is very important that Gatti was able to discover high tariffs as one of the major reasons for corruption among trade-related institutions. It is however important to mention that high tariffs do not only create a fertile ground for corrupt practices but it eventually hampers the rate at which trade flows within a particular corridor leading to the stifling of trade facilitation initiatives and erosion of potential benefits. In 2007 Dutt and Traca provided preliminary evidence to the effect that the trade inhibiting effect of corruption depends on the level of trade costs. The authors demonstrated that as tariff rates increase, firms in corrupt countries can limit their impact by making side payments to customs officials.

Strong institutions are associated with increased trade at both the intensive and extensive margins (Francois and Manchin). Transparency, particularly as it relates to the import regime, can be a significant factor in building strong institutions (Helble et al. 2007).

The challenges with institution reforms under trade facilitation transcend beyond the realms of corruption and lack of transparency to include frequent changes in customs and other trade regulations without prior notice to major stakeholders (market parties, logistics service providers, shippers, etc). This has created a high degree of instability with trade regulations in most African countries. In Ghana, the Customs Excise and Preventive Service (CEPS) was created under the PNDC Law 330 of 1993; however the commissioner is empowered to come out with regulations and other legislative instruments to supplement the law and they are most at times not communicated to the trading community and other stakeholders. Also adequate and timely information is not given to relevant parties whenever changes are effected in existing regulations.

In 2007, Arvis et al identified that there is a strong synergy among transport regulations, border management, infrastructure, customs reforms, etc because these variables usually reinforce each other. This means that transport regulations are very crucial to the success of trade facilitation initiatives; however they are not adequate in most cases. Arvis et al (2007) opined that inadequate regulations in notably African countries lead to corruption and poor services such as extortion and undue exploitation of traders by unscrupulous freight forwarders.

2.3.3 Customs and Excise

The true custodian of cross border trade in a country is Customs and Excise. It is rather unfortunate that they sometimes become a stumbling block to the quick flow of trade largely due to the menace of bribery and corruption. This unpleasant phenomenon is rife among customs authorities in Africa as they have unknowingly transformed themselves into 'enemies' of trade facilitation initiatives in their respective countries.

Customs urgently need reform. Africa suffers from the highest average customs delays in the world, 12 days on average. Estonia and Lithuania require one day for customs clearance; Ethiopia averages 30 days. Customs procedures are often Byzantine in their complexity... Customs delays add to over 10 per cent to the cost of exports (Commission for Africa, 2005 Report).

The World Customs Organization (WCO) journal noted that in customs, one of the major corruption risks is a high rate of duty to be paid. Sometimes it is easier and cheaper for businessmen to bribe a customs officer than to discharge all duties or to avoid paying customs duties by wrongly declaring goods at customs. Wrong declaration of goods at customs brings risks, that customs officer might reveal the cheating during inspection of cargo. Up to 75% of the delays experienced by business can be controlled through actions by customs authorities, other government agencies and the private sector. The private

sector appears to be in the shadow, silently complaining without taking any action on its part to improve the situation.

2.3.4 Economic Impact-Benefits

Trade facilitation is an important aspect and tool for economic development. In measuring the economic impact of trade facilitation initiatives can assume different approaches but the basic idea is to determine the degree of improvement among all levels of stakeholders.

Kleitz (2003) employed three approaches to measure the costs and benefits of trade facilitation; inventory of business complaints, detailed firm-level analysis and modelling trade and welfare effects. The most popular among the three techniques is the detailed firm-level surveys since it provides a fuller and more systematic picture of barriers related to administration and procedures. The problem with using the inventory approach is that it fails to provide any meaningful quantitative estimate with regards to cost and benefit.

Efficient trade facilitation (e.g. increasing the efficiency of border procedures) can help lower trade transaction costs hence reduce the margin between domestic and international prices to benefit consumers and producers (Milner et al, 2005). What is very important with efficient trade facilitation is the ability to measure what goes into achieving it and comparing the figures with trade costs that would have been incurred in its absence; an excise Milner et al failed to undertake. It is however important to mention that Milner et al mentioned size of customs service, existing infrastructure and human resources as factors that determine the cost of implementing trade reforms.

To measure the economic impact of trade facilitation, the OECD in 2005 instituted study which sought to investigate the link between trade facilitation and trade flows, government revenue and foreign direct investments. The findings of this study were that there is a strong positive link between improvements in trade facilitation and trade flows as well as government revenue (especially with developing countries implementing customs and trade reforms). Also, the study was able to prove that an efficient trade facilitation scheme was capable of attracting Foreign Direct Investment (FDI) into a country.

Other cluster of studies investigated the link between trade facilitation and welfare effects using CGI models. In essence, most of these studies sought to analyse the welfare effect of marginal reductions in trade transaction costs (TTCs). The findings were that improvements in trade facilitation would significantly increase global welfare. Table 1 presents a selection of some of the recent studies.

Table 1. Examples of Effects of Trade Facilitation Measures (TTCs)

Study	Effects of Trade Facilitation
OECD (2003a)	CGE (GTAP) model estimates that a one per cent reduction of trade costs for goods will benefit all countries, e.g. as share of GDP: MENA (0.27 percent) and SSA (0.18 percent).
APEC	CGE model estimate that a five per cent reduction in

(2002)	trade costs for goods will raise APEC's GDP by 0.9 percent.
--------	---

Source: OECD/APEC

Yet still other studies sought to analyze and explore the link between trade facilitation and trade flows. Table 2 has itemized some of the findings.

Table 2. Examples of Trade Effects of Trade Facilitation

Study	Region and Effects
APEC (2004a)	Gravity model for APEC: improved customs procedures by 10% boosts intra-APEC imports by 0.5%.
Kim et al. (2004)	Gravity model APEC: improvement in customs performance by 50% would increase imports by 1.7-3.4% in industrialised to 7.7-13.5% in industrialising APEC economies.
Wilson et al. (2003)	Gravity model for APEC: enhanced port efficiency has a greater positive effect on trade even than improvements in customs.
Hummels (2001)	Each day saved in shipping time is worth 0.8 percent ad valorem for manufactures.
Batra et al. (2003)	Survey results from 80 countries find 'customs/foreign trade regulations' the second most serious "tax and regulatory constraint" on business.

Source: Milner et al 2000

Most studies undertaken on the economic benefits of trade facilitation did not investigate how exports will benefit from it. A handful of works however exist in this regard. Soloaga, Wilson and Mejía (2006) applied gravity models to estimate the impact of improvements in trade facilitation by Mexico and Mexico's trade partners and find that Mexico's unilateral improvements in trade facilitation measures are expected to increase manufacturing exports by \$31.8 billion, equivalent to 22.4% of the average export level for 2000-03. Soloaga *et al* (2006) also report that improvements in trade facilitation in Mexican partners would increase Mexican exports by \$2 billion (1.4% of Mexican exports).

USAID (2003) show that the dramatic growth of export from Mauritius from \$89 million in 1970 to \$2.8 billion in 2000 is partly attributed to trade facilitation measures, which reduced the cost and risk of exporting. Hammar (2000) explained the benefits that exporters of perishable products such as agricultural products derive from trade facilitation. He was of the view that perishable products are destroyed when they do not reach the market on time due to delays; however trade facilitation reduces delays and therefore likely to increase the export of such products.

2.4 THE GENERAL TREND IN PORT TRADE FACILITATION AND GEO-SPATIAL ISSUES

Scholars have recently propounded myriads of new concepts aimed at creating a picture of latest trends within the port industry. These include, among others, ports as elements in

supply chains' (Robinson, 2002), port regionalisation (Notteboom and Rodriguez, 2005), intra-port competition (De Langen and Pallis, 2006), ports co-operation (Song, 2003), globalisation of port operations (De Souza *et al*, 2003; Slack and Fremont, 2005), governance of port devolution (Brooks and Cullinane, 2007a) the need to reduce entry barriers (De Langen and Pallis, 2007), and private entry in container terminal operations (Peters, 2001; Olivier, 2005; Midoro *et al*, 2005).

It is estimated that 95% of world trade goes either in whole or in part by sea (Farthing and Brownring, 1997; Michaelowa and Krause, 2000). Global trading patterns are dramatically changing; with seaborne trade between the Far East and Europe increasing at an alarming rate. Harding *et al* (2007) argued that as global trading patterns are changing, new demands are simultaneously placed on ports for more and better infrastructure, increased dredging and dramatic improvement in efficiency. In 2007, Harding, Pálsson and Raballand noted that turnaround time in ports has increasingly become a crucial factor for shipping lines when deciding to call in any port of the world. The authors further noted that one extra day at a port costs more than US\$35,000 to a shipping line for a 2,200 TEU vessel.

The introduction of very large container vessels has contributed to a widening gap between few large efficient ports, which benefit from the economies of scale of these vessels, and most ports in developing countries, which will increasingly have to rely on feeder services (Harding *et al*, 2007). Containerization rate continues to grow at a high pace. If the containerization rate would increase substantially, capacity could then become a serious challenge; sparking a scramble for scarce lands around the vicinity of several seaports worldwide.

Research studies have shown that ports are vital in the facilitation of efficient and cost-effective movement of freight in modern global logistics systems. As essential links within global supply chains they are subject to increasing pressures from shippers, who are in turn driven by the ever-increasing expectations of their own customers. The benefits that accrue to shippers due to efficiency in ports operations and clearance procedures cannot be over-emphasized and this has led to many shipper demands on ports and the authorities that operate them. Some of these demands include better on-time performance, improved document accuracy, greater in-transit visibility and enhanced information flows.

Arising concurrently with these mounting pressures for enhanced service quality are numerous challenges and constraints related to infrastructure, market dynamics, technology, environmental issues, productivity and human resources. The pressure on ports has been further compounded by the advent of containerization which sparked a mega-ship race among carriers culminating in the need for expansion and automation of operations in most seaports around the world to accommodate the next generation of vessels.

Some problems include the massive surge of containers discharged in a single port call and the expense involved in providing sufficient channel and berth depth, terminal areas, gantry cranes of adequate size, and other items of equipment and infrastructure. Access and

Capacity Issues is one of the most acute problems facing ports in many locations around the world.

As the size of container vessels has increased, many ports have seen their competitive ambitions run aground. The probability of increase in maritime trade is very high based on existing forecasts for world economic growth (Gross Domestic Product-GDP) and trade statistics. It is certainly necessary that constraints on port expansion should be a motivating factor for increase in port efficiency (productivity).

The space for port expansion is usually scarce because port location is traditionally near the commercial centre of a city. Many ports have suffered from this problem when they try to establish an ambitious port development project (Notteboom, 2004). The world population is higher (two thirds) around coastal areas where ports are located and this has placed additional pressure on lands in these areas as portions earmarked for port expansion projects is being competed for by other land users (real estate, industries, recreation, etc). In his exposition on *building with nature*, Professor Roland Watermann delved into how port expansion projects are constrained by competition for land. His view on coastal population explosion (geo-spatial issues) in relation to port expansion is summarized in these lines: “... *in all the densely populated coastal areas around the world only little space is available for living, working, transport and recreation, while at the same time there is the need to preserve or even enlarge natural coastal and deltaic habitats*”. The need for ports as well as trade authorities like customs to place emphasis on increasing efficiency of cargo movement at ports rather than physical expansion has become more necessary than ever. Geo-spatial issues will continue to plague the limited land that exist in coastal areas and efficient trade facilitation will certainly form the bedrock of future port expansion programmes.

2.5 POOR TRADE FACILITATION AT PORTS AND BORDERS

Poor trade facilitation is can be described as a cluster of actions that are either deliberately or otherwise perpetuated by relevant trade authorities which eventually leads to non-realization of objectives instituted under trade facilitation initiatives. Among the objectives is the need to reduce trade transaction costs, increase government revenue, and achieve efficiency at customs points including ports. In essence, port trade facilitation will include the following areas:

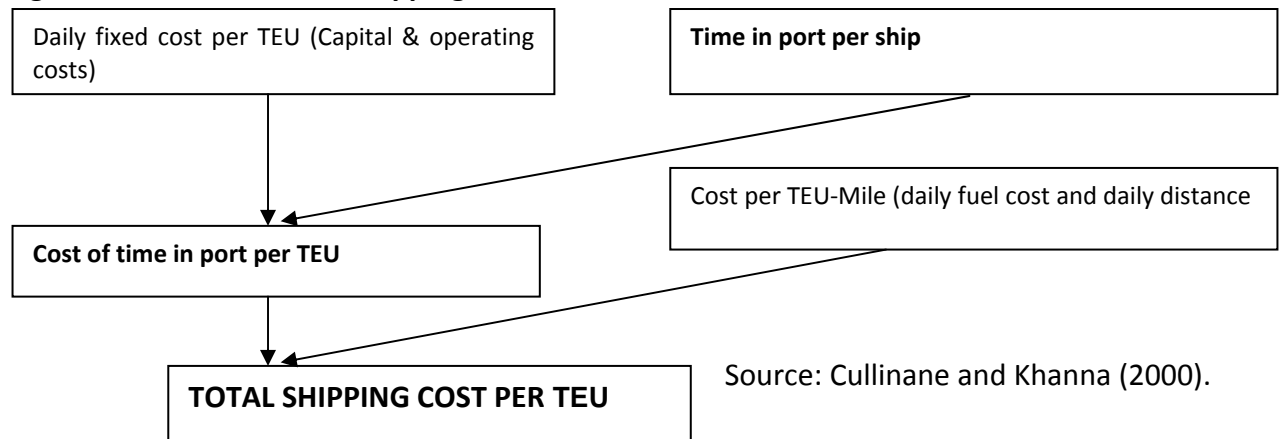
- Cumbersome documentation requirements
- Non-transparent regulations and procedures
- Excessive delays at the border
- Attaching undue importance to infrastructural expansion leading to weak institutions

Economies and other stakeholders of trade have to bear the brunt that poor trade facilitation has to offer. Indeed, as a result of poor trade facilitation and inefficiency, direct charges, such as public port charges and shipping costs, are astronomically high. In addition

to these direct costs, shippers are compelled to also bear indirect logistics costs related to excessive inventory costs and dwell time; and such may constitute an even greater cost.

Cumbersome documentation requirements within the trade chain have very often led to excessive delays at ports. Time in port is a major criterion to choose to call at a port. Poor port efficiency is usually embedded in higher ship turnaround time. When facing this constraint, shipping lines inevitably increase shipping costs charged to the shipper. Sanchez et al. (2003) demonstrated empirically that higher ship turnaround time, congestion time and dwell time induce higher shipping costs, all other things being equal.

Figure 2.3 Breakdowns of Shipping Costs



Delmas calculated that, in 2004, 146 days were lost on the weekly service Europe-Africa because of congestion, which corresponds to an estimated cost approaching US\$5 million, which is passed on to shippers through congestion charges. In 2003, when congestion was extremely high in Nigeria, it was calculated that the average cost of a call at Lagos was twice higher than in Felixstowe (UK). The search for efficient ports and shipping has to be complemented by associated measures, which increase transparency and reduce corrupt practices.

Several metrics and modules exist on what should be considered when determining the efficiency of trade within a particular country or along trade corridors. In his treatise *Crossing Borders without Friction*, Professor Hau L. Lee identified certain variables which must be addressed appropriately to prevent stagnation of trade at borders. He referred to these variables; Time, Costs, Complexity and Efficiency as 'logistics frictions'. Figure 2.4 is an illustration of logistics indicators that according to Professor Hau are necessary when analysing the facilitation of trade.

Figure 2.4 Logistics Performance Indicators (LPI)

Time	Cost	Complexity	Efficiency
Total time for a trade transaction	Total cost for a trade transaction	Signature for a trade transaction	Number of containers unloaded per berth hour
Document processing time	Port and terminal charges	Number of documents per transaction	Port shutdown days
Customs clearance	Document processing	Percent of containers inspected	Inland transport speed
Technical control	Customs clearance costs	Level of inspection	Frequency of vessel call at port
Vessel turnaround	Inland freight	Criteria for inspection	
Vessel waiting time for berth			
Container Security Initiative related time			

Source: Business Logistics, December 2008

Using the above indicators, professor Hau was able to demonstrate that it takes a longer time in poor trade corridors to execute cross border transactions. Findings that were made during Prof. Hau L. Lee's study proved that improving trade procedures at borders is capable increasing the economic health of a country.

Careful analysis of the above indicators gave further credence to the assertion of Subramanian and Arnold (2001) that poor trade facilitation is caused only in part by poor quality of physical infrastructure (highways, ports, rail etc.). Instead, inadequacies in trade facilitation often are triggered by institutional constraints such as: complexity in customs clearance procedures, opaqueness of trade rules and regulations, port and border delays, high level of corruption among trade officials, unnecessary restrictive controls on cargo movement (so called protocols), high percentage of cargo inspections, etc.

Institutional issues such as customs inspection and clearance, technical clearance, and document processing are among the most important factors in the cost and time of shipments, more important even than the physical condition of roads or rail (Subramanian 2001; Subramanian and Arnold 2001).

A typical export transaction requires 42 approval signatures in the Democratic Republic of Congo, 40 in Azerbaijan, 39 in Nigeria, and 33 in Mali—but only 2 in Australia, Austria, and Canada and 1 in Germany (Hausman et al, 2005). This proves that, poor trade facilitation does not necessarily reside in physical infrastructure but rather how the entire exercise is approached by relevant authorities like customs, port and trade-related institutions.

Ultimately, poor trade facilitation and its associated practices culminate in increased cost of doing business and kill the spirit of true competition in industry. As Hausman (2004) put it *“Trade inefficiencies harm the competitiveness of private firms through their effects on both cost and time. The costs relate not only to the direct costs of transporting products; goods in transit incur indirect costs such as inventory holding costs”*. The longer the transit time, the higher are the costs. Hummels (2001) finds that shippers are willing to pay a premium for faster delivery.

It is important that a graphical presentation of poor trade facilitation in Ghana is given. Section 3.2.3 is benchmark information to illustrate how Ghana performs when compared to other countries, especially African countries. Professor Hau Lee’s augmented gravity model-based LPI (Logistics Performance Indicator) is used

2.5.1 Measuring Delays and Costs

During the study, the author found that delays related to cross border trade can be traced to classification and valuation problems. Customs may not be satisfied with the declared value of a commodity and a request for additional documentation may result in delay of goods at the wharf. Inability to determine tariff heading of a commodity at the time of clearance, missing documents, etc are all capable of triggering delays during the clearance process.

Delays in receiving goods due to customs clearance is a matter of concern for any company, but particularly small and medium enterprises, under the pressing demands of today's market. Such delays can arise for various reasons; including valuation problems and others. The type of procedures that cause delays varies between countries. It is common that outdated procedures and uncertainty add to the total time required to import and export. *Time is important ... time delays can push products out of the export market.* (Hammar, 2009)

Delays experienced in cross border trade ultimately leads to increase in trade costs. In 2008 Djankov et al were of the view that importers are compelled due to delays in customs clearance to pay higher storage fees at the port of entry. Lack of transparency with customs and other trade policies can largely be blamed for delays due to the ambiguity that traders experience when making customs declarations. Modernization of Customs and Excise operations is seen as a plausible solution for the elimination of cumbersome control measures which lie at the root of most delays.

In 2006, the United Nations Conference on Trade and Development (UNCTAD) noted that delays in the release of goods due to Customs clearance, including lengthy control and payment procedures, constitute serious problems for modern trade and transport practices, such as e-commerce and just-in-time deliveries.

In counting the costs of delays in trade the author found that the amount of goods moving through a particular trade corridor can be reduced due to delays in clearance. This assertion is supported by Djankov et al in their 2006 study in which they concluded that a one day delay in trade reduces trade volumes by approximately 1 percent. Furthermore, an interesting study that was undertaken by OECD in 2003 found that “indirect costs” triggered

by time delays have a greater impact on trade volumes than “direct costs” (i.e. cost incurred for trade documentation and payment of fees).

Perhaps the costs of delays within the trade process can be summarized in the words of Minor et al 2008 which read: *“Other indirect costs are incurred when delivery times and reliability are uncompetitive, severely affecting a country’s position in highly competitive international markets demanding just-in-time delivery. Product value often declines with time while in transit. For perishable products, spoilage or wastage may increase with transit time. Products with time-sensitive information, such as newspapers, decline sharply in value as that information becomes obsolete. Seasonal and fashion apparel has similar time sensitivity. These costs can also reflect lost opportunities, as when critical inputs cannot reach manufacturing plants in time or perishable commodities cannot reach markets in time—or when production plants must hold higher-than-optimal levels of raw material inventories to cover for logistics delays”.*

2.6 INTERNATIONAL TRADE

The world’s economic system is metamorphosing from one with distinct markets, separated by trade barriers, distance, time and culture to one that is increasingly converging and integrating. According to (Dickens, 1992) two factors underline the trend towards globalization: *“the decline in barriers to the flow of goods, services and capitals and the dramatic development in communications, information and transportation technologies”.*

To complement the smooth process of globalization, the concept of liberalization and deregulation was introduced by policymakers among others, thereby introducing competition into the market (Cullinane and Song, 2002; Chauduri, 2003). The result is market forces now determine the direction of the flow of trade and not regulators. Notteboom (2004) noted that liberalisation and deregulation of markets has facilitated world trade through the elimination of trade barriers. Trade barriers are divergent measures that countries use regulate markets, protect their consumers and domestic industries, but discriminate against imports in favour of domestic products (Pollard et al., 2003). The most common ones are tariffs, quotas, subsidies and dumping.

Over the past two decades, international trade has experienced unprecedented explosion in the volume of cargo generated globally. Figure 2.5 shows the value of world trade between 2000 -2008.



The United Nations Conference on Trade and Development (UNCTAD) released its Review of Maritime Transport 2009, suggesting that the global economic downturn and financial crisis slowed growth in world seaborne trade. The year 2008 marked a major turning point in the history of the world economy and trade. A tightening of credit brought about by the global financial crisis and reduced demand for goods and shipping services led to a decelerated growth in international seaborne trade in 2008.

Over 80% of international trade in goods is carried by sea (UNCTAD, 2008). The long-term forecast for international trade clearly predicts a future upsurge in world trade, with a larger share of the trade going by sea.

2.7 SUMMARY

According to Saunders et al 2003 and Dees 2000, a good literature review must refer to work by recognized experts in its chosen area; both those that oppose and support ideas of the author and it must make reasoned judgements on the value of other's work while distinguishing between fact and opinion. It must also support arguments with valid evidence.

The literature review navigates thorough the relevant issues relative to the research problem and identified eight research gaps. The mains issues examined include:

- Infrastructure and Institutions in the context of trade facilitation
- Costs, Reforms and Customs
- The general trends in port trade facilitation, expansion and geo-spatial issues

- Impact of facilitation measures
- Poor trade facilitation
- Measuring the cost of trade delays and
- International Trade

The next chapter will examine trade facilitation in the Republic of Ghana with reference to the country's port industry.

CHAPTER 3 TRADE FACILITATION- A GLIMPSE INTO THE GHANAIAN PORT INDUSTRY

3.1 INTRODUCTION

The background and research objective were examined in chapter 1. In chapter 2 the relevant literature regarding trade facilitation and its associated disciplines was given a review. This chapter will examine trade facilitation in Ghana with the aim of throwing more light on initiatives like the Ghana Gateway Project. It also discusses aspects of cross-border trade in Ghana with special reference to the country's port industry.

3.2 OVERVIEW OF GHANA'S ECONOMY

In 1957, Ghana became the first country in colonial Africa to gain its independence (www.cia.gov/ghana). Ghana is situated in Western Africa, with the Gulf of Guinea incessantly sweeping its shores in the South. The country is sandwiched between Togo and Cote d'Ivoire to the East and West respectively. Ghana occupies a total area of 239,460 sq km; comprising land: 230,940 sq km and water: 8,520 sq km. Burkina Faso is Ghana's immediate neighbour to the North.

With subsistence agriculture as the fulcrum, Ghana's economy heavily relies on the aforementioned sector to employ 60% of the work force. The main agriculture products include: cocoa, rice, cassava (tapioca), coffee, sheanuts, peanuts, timber, etc. Export commodities of Ghana include: cocoa, gold, timber, tuna, bauxite, aluminium, manganese ore and diamond, among others and these are the major foreign exchange sources for the country. Ghana is set to commence production of crude oil in the last quarter of 2010 and will eventually become an exporter by the close of 2011.

The European Union remains the leading trading partner of Ghana absorbing almost half of the country's total exports. This trend is partly due to trade preferences. Table 3 highlights the performance of Ghana's economy at the end of the 2009 fiscal year.

Table 3 Economy of Ghana - 2009 Performance

	Target 2009	Actual (projected to end of 2009)
Real GDP growth	5.9%	4.7%
12-month CPI inflation (average)	15.3% & 19.1% (revised)	19.5%
End period inflation	12.5% & 14.6 (revised)	17.5%
Gross international reserves	More than 2 months of import cover	2.5 months of import cover
Overall budget deficit	9.4% of GDP	10.2% of GDP

Source: GoG 2010 Budget Statement

In January 2009, the global economic crisis affected Ghana's economy leading to: unusually high food prices, pressure on the Ghana Cedi and a significant budget deficit. Balance of payments projection for 2010 shows a 6% growth in exports. Imports are expected to

increase by 16.8%. Overall budget deficit is expected to be 7.5% of GDP (PriceWaterhouse Coopers, January 2010).

3.3 THE PORT INDUSTRY OF GHANA

Ghana has 539 km coastline and two deep artificial harbours, one at Tema and the other situated at Takoradi. The two seaports, Tema and Takoradi, now carry practically all the seaborne trade of Ghana (Pedersen 2001); as international shipping is confined to these ports. With the demise of Ghana Black Star Line in 1991, merchant shipping is now done by private companies with Maersk Ghana leading the pack.

The ports in Ghana are a major entry point for transit trade to Mali, Burkina Faso and Niger. Ghana Ports and Harbours Authority (GPHA) is a state parastatal mandated under the Provisional National Defence Council 160 of 1986 to operate ports in Ghana. Appendix 5 shows a *Map of Ghana showing the location of seaports, main transport infrastructure, surrounding countries and main border crossings*.

3.3.1 Port of Tema

Commissioned in 1962, the port of Tema handles approximately 70% of Ghana's seaborne trade traffic. The harbour entrance encloses 166 hectares of sea and is Africa's largest man-made harbour. It has 5 km of breakwaters; 12 deepwater berths; an oil tanker berth and a dockyard; warehouses and transit sheds.

The port of Tema also serves to some extent as a gateway for the landlocked countries of Mali, Niger and Burkina Faso. Historically, these countries depended on road and rail links to the port of Abidjan in Cote d'Ivoire for transport of their export and import cargoes (Akamavi et al 2004). However, since Cote d'Ivoire was plunged into civil war in 2002, these landlocked countries have diverted much of their trade to Tema port in Ghana and other ports in the West Africa sub-region (Simpson, 2003).

The Port made some significant strides in the area of container exports, as the year 2008 saw the number going up to 555,010 TEUs compared to 489,147 TEUs in 2007. Total export for liquid bulk, dry bulk, general cargo, and container cargo and forest products was estimated at 8,712,982 metric tonnes for the year 2008, as against 8,378,682 metric tonnes in 2007.

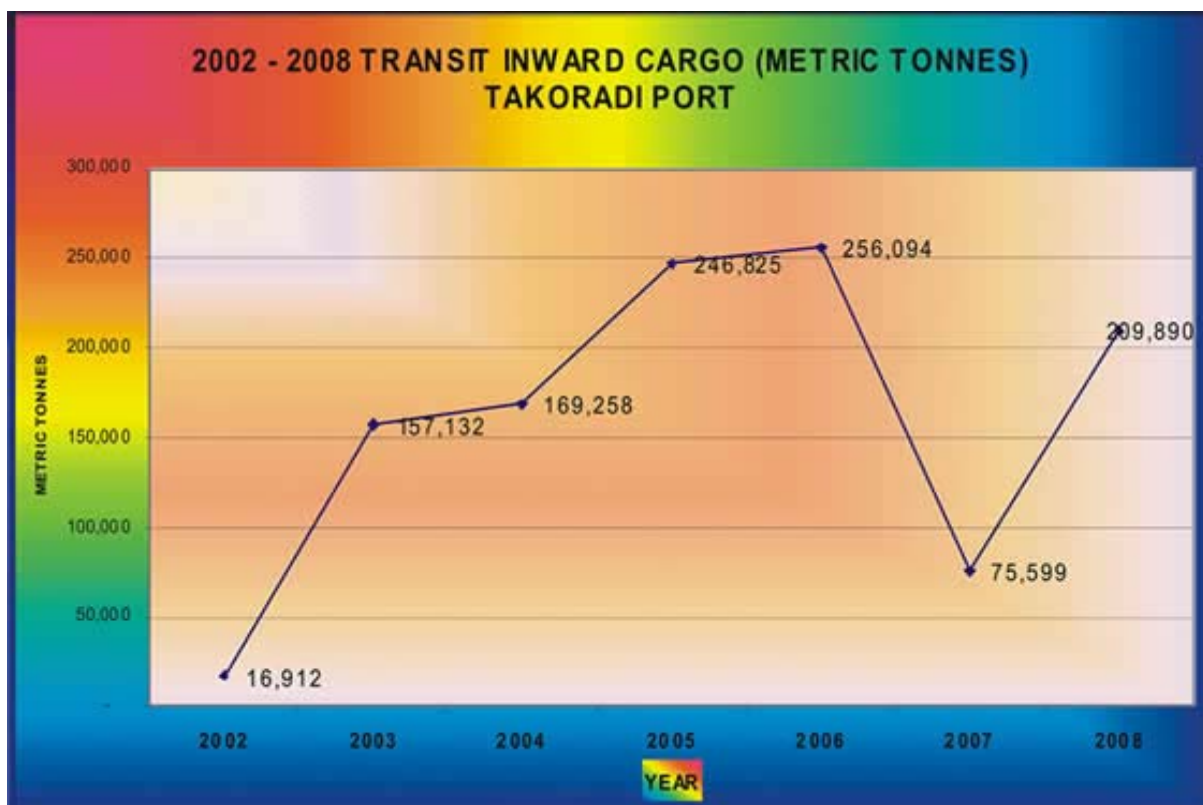
A trade facilitation initiative launched by the Government of Ghana in 2000 led to the award of a concession to Meridian Port Services (MPS) for conversion of Quay 2 at the Port of Tema into a dedicated container terminal. This phenomenon led to the transition of the port from a public status to landlord one.

3.3.2 Port of Takoradi

The Takoradi Port which was built in 1928 is Ghana's main export port; handling 65% of the nation's export. The major commodities handled are manganese, bauxite, timber and cocoa. Takoradi handles over 2.2 million tons of cargo per year. The port has two breakwaters enclosing 220 acres (90 hectares) of sea. The port has only one basin with 9 berths. There are two drybulk, one container, ro-ro and an oil terminal. Apart from bauxite loading facilities, there is an oil discharging terminal; something that will be of huge importance with the discovery of oil in that part of Ghana. The port has both rail and road network connections to the hinterland.

Over the years, port of Takoradi has also been an entry point for landlocked countries. Figure 3.1 illustrates the volume of inward transit cargo handled by the port between the periods of 2002 - 2008.

Figure 3.1 Inward Transit Cargo Handled – Port of Takoradi (2002-2008)



Source: Ghana Ports and Harbours Authority Website (www.ghpa.gov.gh)

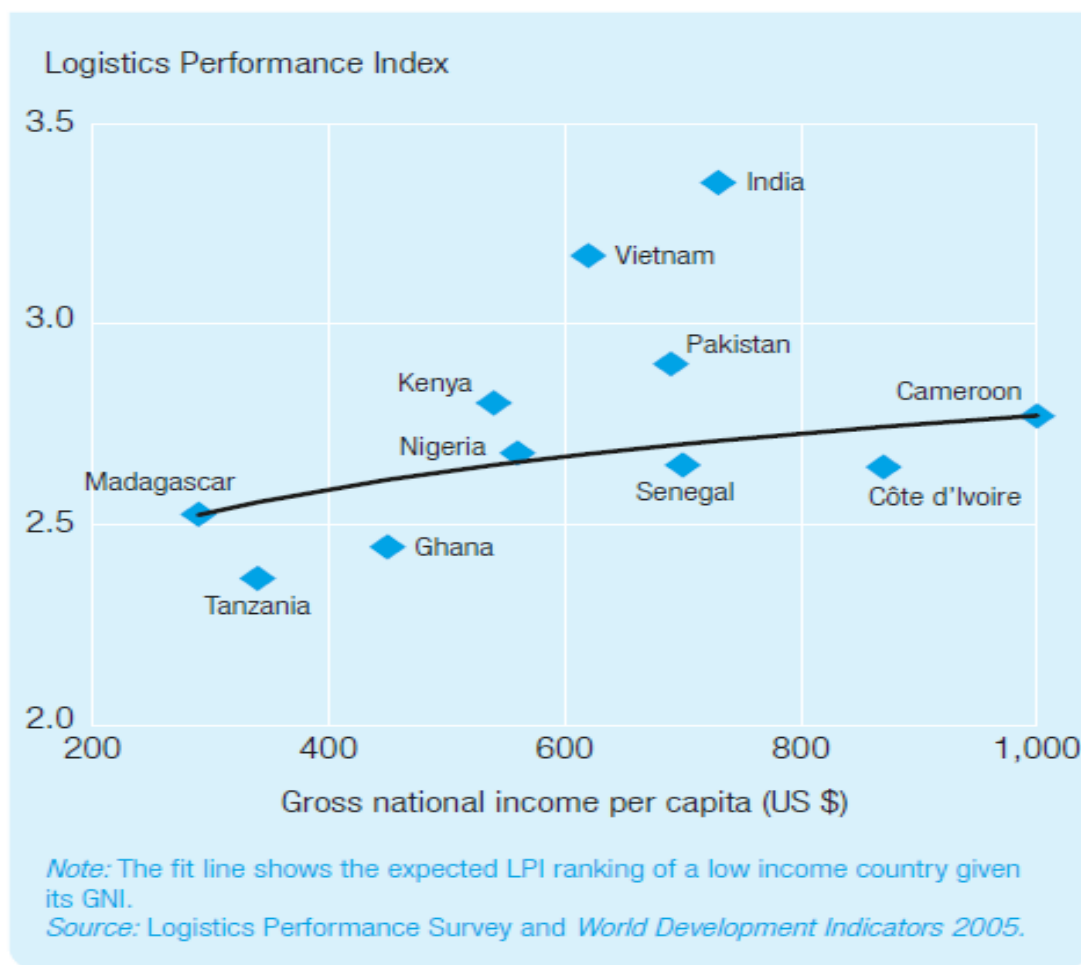
3.3.3 Trading Through Ghanaian Ports – The Cost and Performance Element Comparison

Using what he termed Logistics Performance Index (LPI) Professor Hau Lee based on specific trade-related variables was able to rank the performance of countries under cross-border trade. Ghana among other African countries is included in Professor Lee's report (*World*

Bank Report: Connecting to Compete-The Logistics Performance Index and Its Indicators, 2007). As a low income country, poor trade facilitation practices has severely plagued the numerous trade facilitation initiatives that have been implemented over the years; and this has resulted in severe erosion of benefits that might have been harnessed by stakeholders upon successful implementation.

In figure 3.2 is an illustration of selected low income countries and their respective performance in cross-border trade against a threshold known as the expected LPI ranking. All countries below the aforementioned threshold are perceived to have more problems with trade facilitation and are therefore unable to benefit from globalization due to 'logistics friction'. Ghana is compared to some East and Sub-Saharan African countries in figure 3.2 below:

Figure 3.2 Performances of Selected Low Income Countries



Source: Arvis et al 2007

Poor trade facilitation has not only affected Ghana's performance in cross border trade in terms of logistics, but has equally led to increase in the cost of doing business at the ports and other entry points in the country. The 2010 Doing Business Report that was jointly released by the International Finance Corporation (IFC) and Doing Business gave strong

proof with regards to the rising cost of doing business at ports in Ghana. In table 4 we see a gradual yet substantial increase in the cost of import/export per ISO container. This trend of increase in the cost of importing or exporting at Ghanaian ports should be a huge source of worry to trade facilitation bodies and stakeholders in the country.

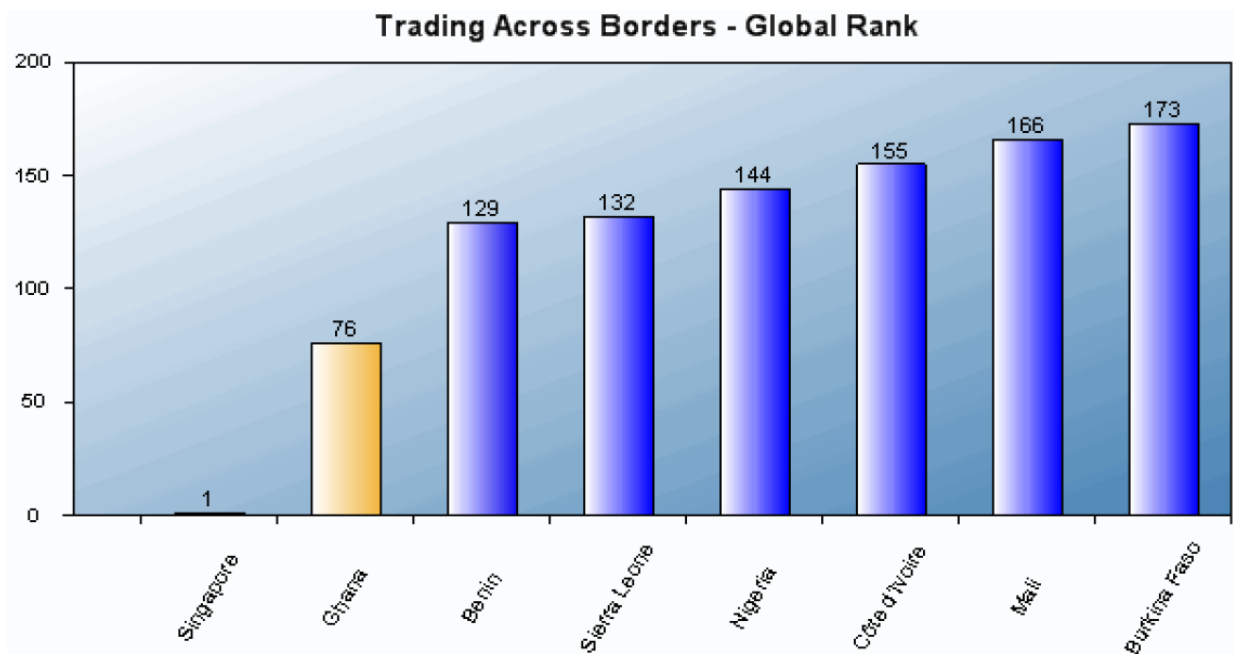
Table 4 Historical Data: Trading Across Borders in Ghana

Trading Across Borders data	Doing Business 2007	Doing Business 2008	Doing Business 2009
Rank	-	63	76
Documents for export (number)	6	6	6
Time for export (days)	21	19	19
Cost to export (US\$ per container)	822	895	1003
Documents for import (number)	9	7	7
Time for import (days)	42	29	29
Cost to import (US\$ per container)	842	895	1130

Source: World Bank/IFC 2010

In figure 3.3 below, a cross-border trade performance comparison is drawn between Ghana and other countries in West Africa as well as the world. The overall ranking for Ghana is good; but the position of Singapore vividly indicates that much more can be done with trade facilitation in the country.

Figure 3.3 Ranking of Ghana in Trading across Borders - Compared to good practice and selected economies



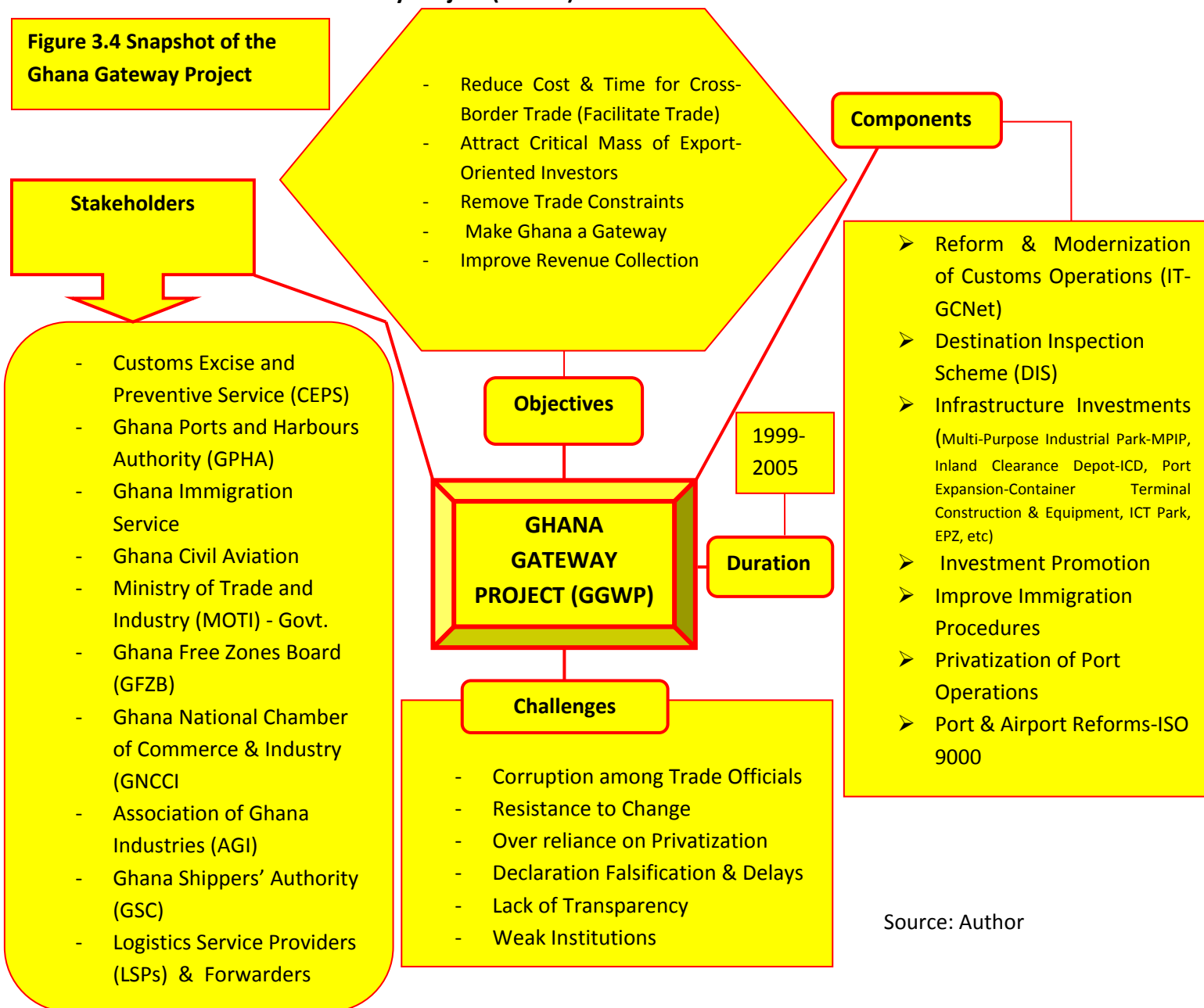
Source: World Bank/IFC 2010

3.4 TRADE FACILITATION INITIATIVES IN GHANA

In an era where globalization has led to unprecedented explosion in the volume of world trade, there is enormous pressure on Port Authorities to increase efficiency in their operations as well as fund port expansion projects to keep up with the degree of competition in the system. In Ghana, the Government found it expedient to employ Public-Private Partnership to modernize its customs and port operations. This idea led to trade liberalization around 1999 and subsequently, emergence of the Ghana Gateway Project (GGWP) and other trade facilitation-based initiatives.

3.4.1 The Ghana Gateway Project (GGWP)

Figure 3.4 Snapshot of the Ghana Gateway Project



Source: Author

3.4.1.1 Background

Trade Facilitation is at the core of Government trade and investment promotion drive. It has been identified as a means of attracting foreign direct investment into Ghana. In line with this objective, the government in 1997 embarked on a trade and investment gateway programme with a loan of 50 million dollars from the World Bank. The programme is also to strengthen the human and institutional capacity of front line agencies to reorient and makes them more proactive to trade facilitation measures. For example the Ghana customs (CEPS) is being assisted to become ISO9000 compliant to ensure consistency transparency and predictability in their procedures. The Ports and Harbors Authority has licensed a couple of stevedoring companies to take over cargo handling activities and the authority has now assumed the role of a landlord. Private companies have been encouraged to put up container terminals to decongest the ports.

As a result of the implementation of the gateway project, in year 2000, Ghana adopted the WTO Valuation concurrently with the Destination Inspection Scheme (DIS). Prior to this, Ghana had over the past 28 years been operating pre-shipment inspection scheme. The PSI Scheme was long and cumbersome and on the average took between 4-6 weeks before goods were cleared. There was also 100% physical inspection of imports. Under the DIS, two companies namely; Gateway Services Limited and GSBV Ltd were contracted by Government of Ghana and assigned responsibility for the destination inspection of imports at the seaports and land frontiers/airport respectively.

3.4.1.2 Objectives

The Ghana Gateway Project (GGWP) was instituted under the following objectives:

Figure 3.5 Objectives of the GGWP

- REDUCE COST & TIME FOR CROSS-BORDER TRADE (FACILITATE TRADE)
- ATTRACT CRITICAL MASS OF EXPORT-ORIENTED INVESTORS
- REMOVE TRADE CONSTRAINTS
- MAKE GHANA A GATEWAY IN THE WEST AFRICAN SUB-REGION
- IMPROVE REVENUE COLLECTION FOR GOVERNMENT THROUGH EFFECTIVE TARRIF CLASSIFICATION AND DUTY EVALUATION
- ACCELERATE EXPORT-LED GROWTH
- IMPROVE VESSEL TURN-ROUND AND CARGO CLEARANCE TIME

Source: World Bank- GGWP Appraisal Document

Illustration: Author

3.4.1.3 Stakeholders

Stakeholders of the Gateway project range from individual shippers to trade-related institutions. The most notable of the stakeholders illustrated in figure 3.4 are Customs Excise and Preventive Service (CEPS), Ghana Ports and Harbours Authority (GPHA) and the Ghana Shippers' Authority (GSA) who represent the interest of shippers in Ghana.

The Customs Excise and Preventive Service is the state parastatal legally mandated to control the inflow and outflow goods into and out of Ghana respectively. The service has been restructured under the PNDC Law 330 of 1993. Headed by a commissioner, CEPS are expected to secure revenue on cross-border trade while expediting the flow of merchandise. Under the Ghana Gateway Project, CEPS are expected to be equipped with requisite tools, methodology and corporate culture to become an effective institution for the delivery of customs services in a manner which is consistent with the Gateway objectives. The problems that traders and investors have identified with CEPS include: (a) complex regulations which compound compliance; (b) valuation procedures that are not consistent with international standards; (c) deliberate delays by customs to induce extortion and (d) the Para-military status of customs which hinders their ability to facilitate trade. All the identified challenges have culminated in high cost of trading across Ghanaian borders.

The Ghana Port and Harbours Authority is mandated under the GGWP to be a trade facilitator and reduce the cost of doing business at the ports. Both the ports of Tema and Takoradi are under the regulation and control of the GPHA. Under the GGWP, GPHA has acquired a landlord status leaving port operations to private stevedores. APM Terminals and Bolloré Group submitted a bid in September 2002 and took the lead in forming the consortium, Meridian Port Services Limited (MPS). Meridian Port Services Limited is a joint venture between Ghana Ports and Harbours Authority And Meridian Port Holdings Limited, which is in turn a joint venture with Bolloré Group and APM Terminals as the two main shareholders.

It has been identified that GPHA has problems centred on capacity and institution issues. Capacity issues include: increased container traffic, queuing of ships, devanning of containers on quays and increase in transit and transshipment cargo. Overstaffing, inappropriate port management system and low staff morale are some of the institution-based challenges bedevilling the authority.

The underlining problem with these institutions is the lack of co-operation among them; a phenomenon that is seriously militating against attainment of the GGWP objectives.

3.4.1.4 Achievements/Gains

Even though the GGWP is heavily saddled with numerous challenges and setbacks, there is no doubt that it has been able to make some notable inroads within the Ghanaian foreign trade sector, more especially in the clearance of goods at the ports and airports. Table 5 is an outline of some achievements that were chalked under certain components of the GGWP since its inception.

Table 5 Achievement of the Ghana Gateway Project

No.	ACHIEVEMENTS	REMARKS
1	Simplified Customs Procedures	Reduction in agency-agency shuttling by clients; and electronic submission of most documents (Appendix 1 & 2)
2	Faster Clearance Times	Significant reduction in time for cargo clearance at the ports and airport. A lot of procedures have been automated (GCNet)
3	Quicker Transit	Satellite Tracking of Transit goods which has more advantages than the escort system
4	Increased Revenue Collection	Surge in Revenue Collection by Customs; average annual revenue growth since 2003 is 33% and 32% for Tema port and Kotoka International Airport respectively. Electronic Payment arrangement with selected banks.
5	Improved Competitiveness	Increase in Export Competitiveness due Expeditious processing of Consignments and Electronic Issuance of Permits.

Source: International Trade Centre/Researcher

3.4.1.5 Challenges

The researcher identified that there are several challenges confronting various components of the GGWP. Notable ones include:

- High level of corruption within the Customs Excise and Preventive Service (CEPS); aiding smugglers to defraud the country of millions in revenue and connivance by some CEPS officials together with other stakeholders (traders, freight forwarders, etc) in fleecing the nation of revenue that should be realized through payment of indirect tax on imports and exports.
- Resistance to trade reforms by officials; as initiatives like the GCNet led to radical changes in certain operational functions. Also having been deployed in complex and intensely political agencies, some users saw it as a threat to their existence, perceived “benefits”, or entrenched operational modes, and in many respects resisted the change.
- Weak trade facilitation institutions; a phenomenon that is largely influenced by the fact that more attention is focussed on physical infrastructure under the GGWP without commensurate consideration for the human element.
- Political factors - changes in power has led to a situation where new governments pursue a different trade agenda; leading to the institution of policies that inadvertently militate against objectives of the GGWP. This phenomenon is

epitomized by the increasing tariffs on goods which have added significantly to the already high cost of doing business for traders at Ghanaian borders and ports.

- Lack of partnership between the private and public sector; as there is an overwhelming focus on private companies to execute tasks. Privatization has led to a rather drastic increase in the cost of doing business at the ports. Some stevedores and shipping lines levy what can be termed as illegal or unconstitutional charges to shippers.

3.4.2 Other Initiatives

Apart from the GGWP, there are other trade facilitation-related initiatives which are of immense significance to Ghana's trade and economic ambitions. The most notable of these programmes is the West Africa Transport and Transit Facilitation Project; which is designed to benefits countries like Burkina Faso, Ghana and Mali.

This project aims at developing a corridor among the listed countries to facilitate trade within the sub-region and improve access to world markets by Burkina Faso and Mali. According to the Project Development Objective (PDO), *"the proposed project aims to improve access by Burkina Faso and Mali to Ghanaian ports, as well as improve port operations and facilitate the efficient movement of traffic along the Tema – Ouagadougou – Bamako transport corridor"*.

The proposed project has two major components presented in table 6:

Table 6 Components of the West Africa Transport and Transit Facilitation Project

PROJECT COMPONENTS	DESCRIPTION
1. Corridor Road Infrastructure Improvement	<p>Improve road corridor for carriage of inter- and intra-country traffic by:</p> <ul style="list-style-type: none"> - Rehabilitating and Strengthening Key road sections - Constructing rest road areas - Implementing social and environmental mitigation measures
2. Corridor Transport and Trade Facilitation Measures	<p>Strengthen the capacity of Customs and transport authorities to better manage the flow of transit traffic along the corridor by:</p> <ul style="list-style-type: none"> ➤ Constructing a Satellite Transit Truck Village (STTV) adjacent to the port of Tema ➤ Rehabilitating and Equipping Faladie multi-functional platform in Bamako ➤ Upgrading customs-related ICT and extension of cargo tracking system to better monitor and secure transit traffic ➤ Logistical capacity building

Source: World Bank

The key indicators that were outlined for measuring achievement of the Project Development Objectives include:

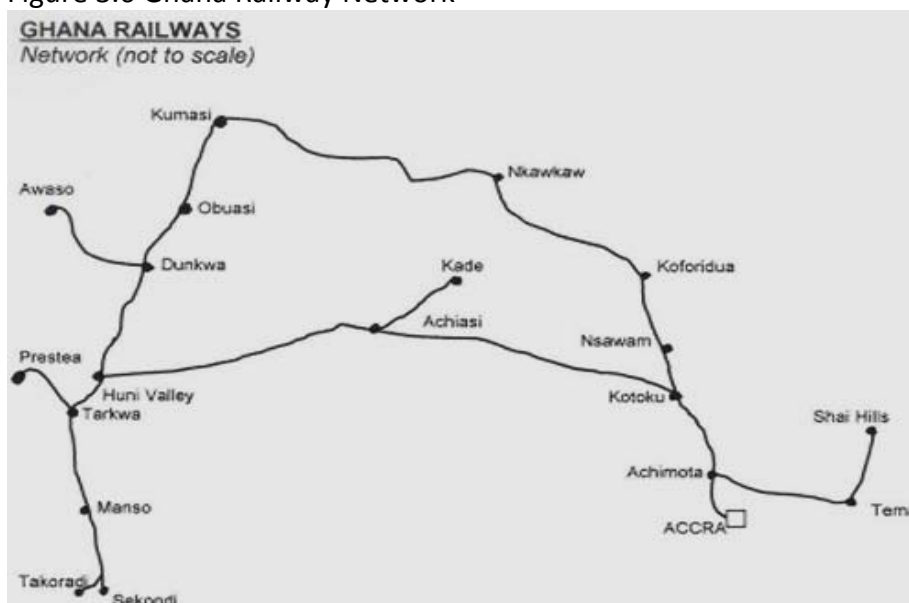
- Average transit time for containerized imports from the exit at the Port of Tema to Ouagadougou and to Bamako;
- Variance in transit time for containerized imports from the exit at the Port of Tema to Ouagadougou and to Bamako

3.4.3 Port – Hinterland Connections and Competition in West Africa

The surface transport system in Ghana remains largely based on increasingly obsolete colonial era transport infrastructure which was developed to facilitate the extraction of raw materials from the hinterland to the ports for export. This mainly follows a south-north axis from the major sea-ports to the hinterland. Over the last thirty years, road transport has become by far the dominant mode of transport in the Ghana with a modal share of about 90 percent for passenger and freight

Rail transport in Ghana has not received much attention over the years. The railways have a total of 953 kilometres rail lines with a narrow gauge of 1.067m as at 2003 (www.fahrplancenter.com). The rail network is triangular in shape as exemplified in figure 3.6.

Figure 3.6 Ghana Railway Network



Source: www.fahrplancenter.com

Today, what is left of Ghana's railway network can better be described as colonial relics; with the national operator –Ghana Railway Corporation struggling to cope with a decaying

infrastructure of rail tracks. For the past three decades, the single largest thing that has happened to this sector is the myriads of bribes services paid by politicians. Poor rail infrastructure has been one of the main reasons for high distribution cost in Ghana. Port competition is highly influenced by the quality of hinterland connections.

Ghana seaports are in competition with rival neighbouring ports in Cote d'Ivoire i.e. Abidjan Port, Togo, Benin and the Ports of Apapa and Tin Can in Nigeria among others (Simpson, 2003). For Ghana to achieve its objectives under the GGWP, it must be emphasized that particular attention needs to be given to surface transport existing between seaports in the country and the hinterland.

With regards to competition among ports in West Africa, Abidjan is well ahead of Tema in Ghana due to its excellent rail connection with Burkina Faso. The railway facilitates intermodal transport of goods to/from the Port of Abidjan to the heart of Burkina Faso (Akamavi et al., 2004). The lack of a rail network between Ghana and landlocked Francophone countries (Burkina Faso, Mali, Niger, etc) naturally places the West African Francophone ports ahead of Ghana in terms of market share for transit cargo.

For ports like Tema and others in West Africa, the fulcrum of competition among them rests largely in trade facilitation; their ability to improve vessel turnaround time, reduce container dwell time at the port to ease congestion and simplify customs procedures.

3.4 SUMMARY

The chapter took a closer look at the port industry of Ghana and associated issues with an examination of how they relate to the facilitation of trade. Also, the Ghana Gateway Project (GGWP) was examined and the challenges bedevilling effective implementation of this trade initiative. Finally, the issue of competition among ports in West Africa was also touched on. It was noted among other things that high level of corruption among customs officials at Ghanaian entry points/ports and over-dependence on infrastructure does not augur well for the country's trade ambitions.

In the next chapter, the research methodology, conceptual framework and hypotheses will be thoroughly examined.

CHAPTER 4 RESEARCH METHODOLOGY: THEORETICAL FRAMEWORK AND RESEARCH DESIGN

4.1 INTRODUCTION

Chapters 1 and 2 covered the background, research objectives and the relevant literature review respectively. The port industry and related activities as well as the economic structure of Ghana among other things were discussed in chapter 3.

The current chapter seeks to discuss methodologies that have been employed to undertake the data gathering and analysis for this research. A proposed conceptual model will also be presented outlining the research hypotheses derived from the literature review. The chapter also presents a justification of all data collection methodologies employed: interviews, questionnaires, surveys and desk research. A sampling method will be examined and the issue of data validity considered. The analytical techniques which were employed for the statistical analysis and their justification will also be discussed in this chapter.

4.2 THE CONCEPTUAL MODEL

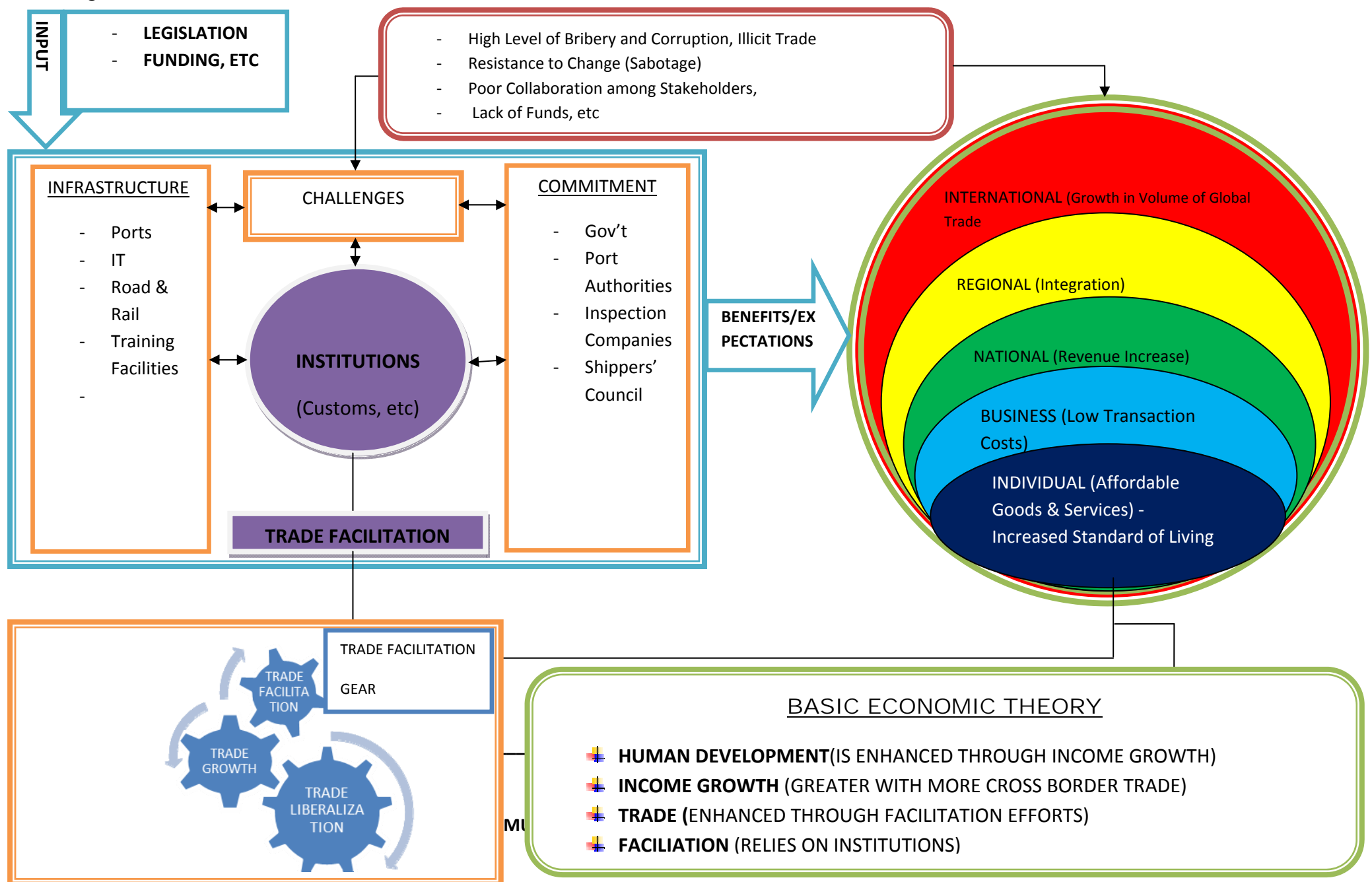
According to Checkland (1999), a conceptual model consists of the operational system which the designer builds to present information logically. It is a human activity model that strictly conforms to the root definition using a minimum set of activities. When developing a conceptual model, it is imperative that Formal System thinking is applied. In figure 4.1, we see a logical illustration of institutions and the mechanics of trade facilitation.

Every trade facilitation initiative has a mission and consists of issues which embrace infrastructure, commitment, institutions, benefits and challenges. Lying at the heart of trade a facilitation programme are institutions which ensure the expectations of stakeholders is met through successful implementation. With the long term benefits of trade facilitation in mind, the primary role of institutions is work towards effective interaction among individual components (infrastructure, commitment, inputs, etc) so that the effects and actions are transmitted through the whole system.

To ensure the achievement of envisaged benefits at all levels, institutions like Customs and other trade agencies must work towards the elimination of challenges that confront the trade facilitation initiatives. Basic Economic Theory is of the view that trade is enhanced through facilitation efforts but it needs to be said that enhancement lies more on the shoulders of stakeholder institutions who must not over-rely on facilities such as port expansion, provision of handling equipment, etc to the detriment of institutional efficiency.

The relationship between challenges that confront trade facilitation and the expected benefits is that the latter is eroded faster and easily based on severity of the former.

Figure 4.1 CONCEPTUAL MODEL: INSTITUTIONS AND THE MECHANICS OF TRADE FACILITATION



4.3 RESEARCH METHODOLOGY - PREFERENCES

Research objectives and associated questions should drive selection of research methodologies (Patton 2002; Strauss and Corbin 1998). In Saunders et al (2003), the authors were of the view that every research is guided by objectives and the choice of methodology stems from these objectives. The research methodology is illustrated in figure 4.2 on the next page.

The Desk Research embraced use of the internet, textbooks, magazines and articles to have a thorough understanding of trade facilitation, the GGWP, and a general understanding of what is pertaining to African countries as far as trade facilitation is concerned. This methodology proved to be a very huge source of secondary data during the study.

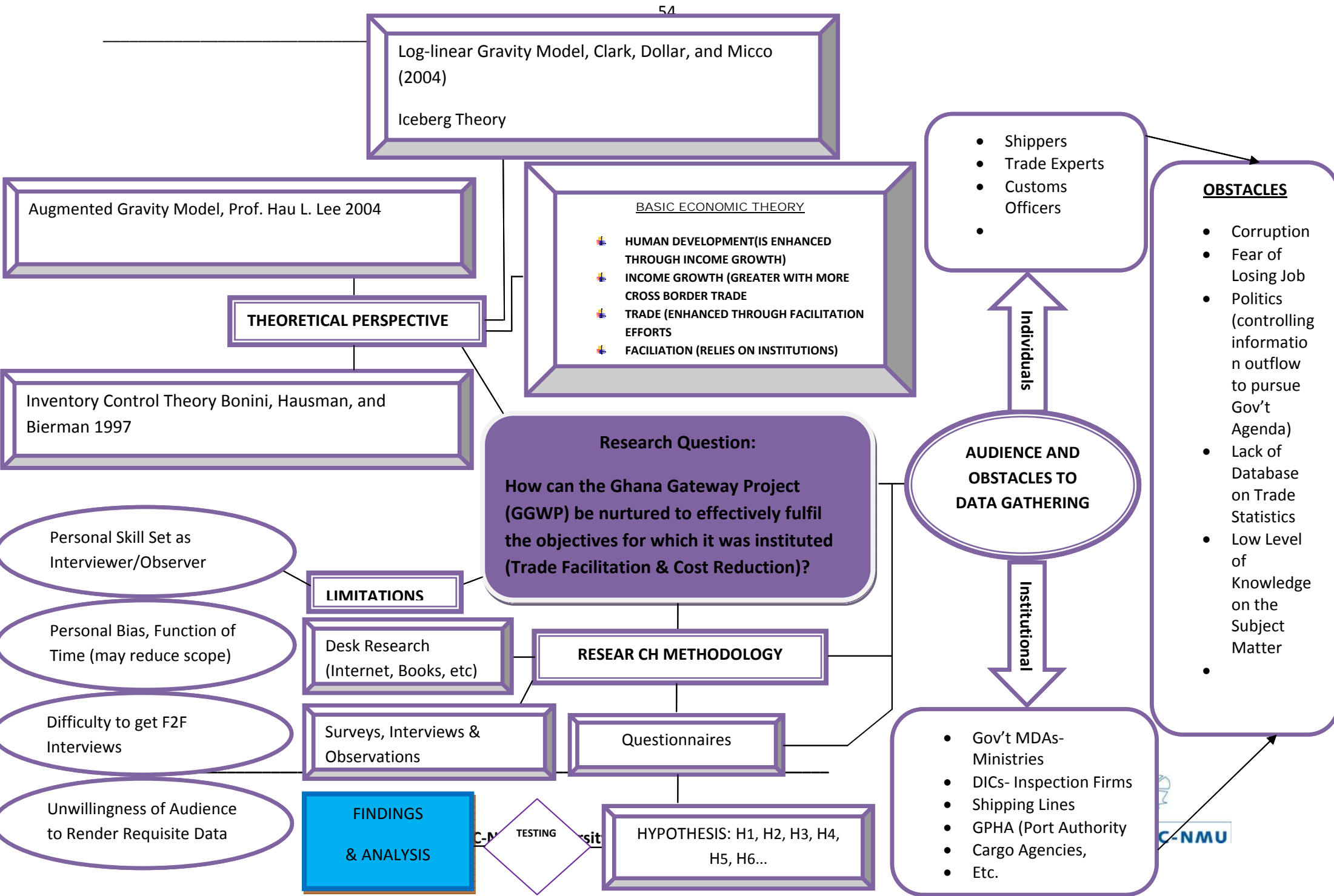
The primary source of data was in-depth, unstructured interviews lasting from forty-five minutes to one-half hours. While the format was flexible, an interview guide containing specific questions, follow-up questions, and a rough outline for the ordered placement of topics was used to maintain focus on the research (Patton 2002). Interviews thus continued until patterns of regularity became evident and theoretical saturation was reached (Eisenhardt 1989; Garver and Mentzer 2000). A total of 11 individuals were interviewed. This sample exceeds the guideline of eight interviews necessary to answer many research questions, as recommended by McCracken (1988) and followed in several trade-related research studies (Garver and Mentzer 2000; Golobic and Mentzer 2005). Participants representing a wide variety of job types and levels within trade management positions were selected to obtain a diverse set of experiences and viewpoints. Where necessary, telephone interviews were resorted to.

Due to the erroneous impression about secrecy of data gathered from interviewees, it was impossible to audio tape the interviews as that would have aided professional transcribing. Coding of the interviews followed established grounded theory guidelines as laid down by Glaser (1978). Surveys made it possible for the researcher to reach a wide spectrum of stakeholders in the Ghanaian Port Industry (shipowners, port authorities, shippers, destination inspection companies, experts, trucking firms, etc). Additional sources of data included observation of activities within the participating companies. Also a couple of visits were made to the port of Tema and other off-dock terminals to enable the researcher become acquainted with clearance procedures and have first hand information about the challenges faced by stakeholders at the ports and borders.

The questionnaires were designed to enable the researcher meet objectives of the research based on the hypotheses outlined in section 1.2. The kind of companies that received the questionnaires is true representation of the port sector in Ghana; an ingredient that was necessary to avoid bias in the data gathering exercise. About 100 copies of the questionnaire were circulated. Questionnaires assumed a general question approach and this was aimed at studying how all sections of the port sector in Ghana will react to the same question.

FIGURE 4.2 THESIS THEORETICAL FRAMEWORK

SOURCE: Author (Livingstone C. 2010)



4.4 JUSTIFICATION OF DATA COLLECTION METHODOLOGY

The main driving factors that necessitated the employment of questionnaires, interviews, surveys and desk research to gather data for the study are as follows:

- ✚ Questionnaires are an inexpensive way to gather data when compared to face-to-face interview (Sekaran, 2003).
- ✚ It is relatively easy to analyze questionnaires. The availability of advanced computer software packages means that data entry and tabulation for nearly all surveys can easily be executed.
- ✚ My research was based on a topic that is not well-researched. It therefore became important that I access some background information from a distance. To accomplish this, I towed the line of Edwards and Talbot who pointed out that questionnaire is very effective in that regard.
- ✚ Research is not so much a matter of gathering up data that already exist, but a process of making successive observations and inferences during which data are not merely gathered but in some sense created to according to the theoretical assumptions that drive the researcher's approach. (Sutton, 1998, p. 269)
- ✚ Questionnaire is one of the most widely used data collection techniques which do provide an efficient way of collecting responses to a set of questions (Saunders et al 2007).
- ✚ In terms of speed in data collection and costs, telephone interviews are highly appreciable. Also, a lot of players within the Ghanaian port industry could only be reached promptly by phone; an alternative which yields the same results as any other means yet at a cheaper cost. In addition, fortune smiled at my data gathering when Vodafone, introduced a promotion that enabled subscribers to talk on phone at 30 cents per 30 minutes. This development further boosted the advantage to use telephone interview as an alternative to face-to-face where it was necessary.
- ✚ Interviews are an excellent tool for the collection of comparable data and expert knowledge. This can be achieved by ensuring that interviews are semi-structured.
- ✚ Managers are more likely to agree to be interviewed rather than complete a questionnaire (Saunders, Lewis & Thornhill, 2003; North et al, 1983). This study strongly supports the above assertion. In my case, I was more attracted to interview since most managers within Ghana's port sector are not capable of comprehending the designed questionnaire. A lot of them cannot read and understand effectively so interviewing them will afford this researcher the opportunity to make the most out of a conversation rather than have them write when they cannot even understand the questions.
- ✚ Secondary data which is usually obtained from desk research are available from government agencies and therefore inexpensive to gather (Saunders et al 2003).
- ✚ Employing varied methodologies to gather the needed data for this study proved very important in the triangulation of results by the researcher.
- ✚ Surveys are like an onion with data from questionnaires similar to peeling off some outer layers of skin, but being supplemented by interviews to get to the in-depth

layers (Edwards and Talbot, 1999, p. 88). In trying to understudy the main reasons why the GGWP is unable to meet its objectives surveys seemed a useful method to adopt as it will help unearth challenges confronting the programme by removing the 'layers of onion' to reach the core.

- ✚ In Bell (1987, p. 13) it was suggested that a representative selection of the population can be targeted by a survey; and this necessitated the creation of questionnaires 6a and 6b (see appendix 3).

4.5 RESEARCH PROCEDURES AND SAMPLING: Steps to Execution of the Thesis

In executing this study, the researcher took the following steps as depicted in the table below:

Table 7 Steps to Execution of the Thesis

STEPS	ACTION	DETAILS
1.	FEASIBILITY STUDY	<p>Conducted 16 days of feasibility study to ascertain viability of the topic to be researched-whether it is 'researchable'. This was done by emailing various kinds of companies operating in the Ghanaian port industry to know their stance on the GGWP and whether a research on it is a laudable idea.</p> <p>Friends of the researcher in Ghana's freight forwarding sector were very convinced that this topic is feasible. A feasibility study was important to give the researcher a fair idea of data that will be required to satisfy the research objectives, appropriate methodologies for the data gathering, etc.</p>
2.	EVALUATION OF THE GGWP	The GGWP contract document prepared by the World Bank was evaluated and it was a huge source of data during the Desk Research.
3.	DEFINITION OF BOTTLENECKS	Bottlenecks of the GGWP were identified and defined. Two categories of bottlenecks were outlined: Pre-GGWP and Post-GGWP to enable the drawing of comparisons.
4.	RESEARCH DESIGN	<p>After extensive reading on Trade Facilitation in Ghana and Worldwide, a theoretical framework for the study was designed; which took into account the problem statement as well as existing knowledge on trade facilitation and the need to add new knowledge.</p> <p>Without a good theoretical framework, it will be impossible to do any credible research; hence a good concept/theory which forms basis for the study was designed.</p>
5.	HYPOTHESIS & QUESTIONNAIRES	To satisfy the research objectives, hypotheses and corresponding questionnaires were designed. All questionnaires were pre-tested using colleagues of the researcher.
6.	METHODOLOGY	To gather relevant and adequate data for the study, four data collection methods were chosen as per the research objectives: interviews, questionnaires, surveys and desk

research.

7. DESIGN OF STUDY CONTENT

A comprehensive content was then drafted taking guidelines and requirements of the STC-NMU into consideration.

Source: Author

4.5.1 Selecting Sample Population

Sampling can be explained as drawing a sample (a subset) from a population (universal set). In Saunders et al (2003), sampling is explained as a technique which enable researchers to collect data that are relevant mostly from a subgroup rather than all portions of a given population. Careful selection of sample is very important and it is incumbent on any researcher to undertake such a task in order to clearly identify the target population. It must be said that logic and judgement is of grave importance when performing this kind of exercise; which should be guided by objectives and questions as per the research. The sample population of this study encompasses shippers, logistics service providers, freight forwarders, Ghana Ports and Harbours Authority, Customs Excise and Preventive Service, terminal operators and other relevant stakeholders of the Ghana Gateway Project.

4.5.2 Sampling Methods: - Probability Sampling

There are two categories of sampling methods: probability or non-probability (Saunders et al, 2003; Sekaran, 2003). With probability samples, each member of the population has a known non-zero probability of being chosen. Random sampling, systematic sampling and stratified sampling are all types of probability sampling. Probability sampling has a merit which makes it possible for sampling error to be calculated (Saunders et al, 2003). The degree to which a sample might differ from the population is known as *sampling error*.

4.5.3 Non-Probability Sampling

In Sekaran (2003) and Saunders et al (2003) we see that with non-probability sampling, members are selected from the population in some non-random manner. The types of this method of sampling include: convenience sampling, purposive sampling (judgement/quota sampling), and snowball sampling.

4.5.3.1 Purposive Sampling

With this type of sampling, the researcher selects convenience sample from a population with specific set of characteristics for the study (Bryman et al 2003). *The sampling for this study is restricted to specific types of people who can provide the requisite information; due to the fact that they are the ones who have it and conform to the criteria set by the researcher.*

4.6 DATA REQUIRED: - Secondary and Primary Data

Data that was gathered previously by others yet related to the study under consideration is referred to as secondary data. To meet the objectives of this study, the researcher relied on desk research to gather secondary data from stakeholders like the Ghana Ports and Harbours Authority, Ghana Shippers' Authority, World Bank, among others. Saunders et al (2003) noted that secondary data is quicker and cheaper to obtain as well as relatively more reliable. A major demerit of secondary data however, is that it is most often outdated.

In 2003, Sekaran defined primary data as *"information obtained firsthand by the researcher on the variables of interest for the specific purpose of the study"*.

During the data collection exercise for this study, primary data was gathered through telephone interviews, personal observations, field surveys and the distribution of questionnaire to the targeted population. Telephone interviews are relatively lower in cost due to savings made on travel expenses and travel time. It is also speedy i.e. the pace of gathering data. Hearing difficulty on the part of respondents (interviewees) is a major setback to telephone interviews. When questionnaires are employed in the collection of primary data, the advantage lies in the prospect of using statistical methods to analyze almost any kind of data gathered. Field surveys are also meritorious as they afford the researcher an opportunity to have firsthand knowledge of the real situation on the ground, yet inability to have access to operational/restricted areas can be a disadvantage.

4.7 DESIGNING QUESTIONNAIRE

A questionnaire is defined by www.wikipedia.org as *"a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents"*. Although they are often designed for statistical analysis of the responses, this is not always the case. In other words, questionnaire could be *"a prepared set of questions designed to generate data necessary for accomplishing the objectives of the research project"* (Grinnell, 1990). This definition outlines the need for all research questionnaires to be designed so as to meet stipulated goals of the study as well as maximize the proportion of respondents. This study focuses on two categories of information to satisfy the research objectives and hypotheses; dependent and independent variables which have been considered in design of the questionnaire. A questionnaire is a powerful evaluation tool.

In designing the questionnaires for this study, the researcher meticulously ensured that respective questions are relevant, appropriate, intelligible, precise and unbiased (Saunders et al 2003). Much effort was made to ensure that the questions are not ambiguous as that will thwart the primary objective of employing them as data collection tools for the research. The researcher opted for a close-ended format questionnaire with the inclusion of a 5-point Likert scale for scoring and coding the response. With the intended questionnaire format, using of computers in the processing and analysis of gathered data becomes convenient. The principal merit with close-ended questionnaire is that, it is easy to answer and collate. One demerit may be that the standardization of answers may frustrate respondents.

To avoid bias in distribution of the designed questionnaire, care was taken to ensure that the composition of companies that received survey materials is a true representation of the port sector in Ghana. The researcher successfully distributed 100 copies of questionnaire materials to the targeted population.

4.7.1 Pre-testing questionnaire

All questionnaires and hypotheses designed to collect the required data have been pre-tested. Pre-testing was necessary to enable the researcher know how respondents will react to questionnaires to be circulated. It was also important for the researcher to ascertain the degree of comprehension among targeted population with regards to designed questionnaires. In Bryman and Bell (2003), pre-testing is mentioned as a tool that the researcher can employ to know how long it will take respondents to answer the questionnaire.

Pre-testing of questionnaire creates an opportunity for refining it so that the targeted respondents will have no problems in answering the question. Also, Sekaran (2003) argued that pre-testing can be employed as a technique by the researcher to obtain some degree of assessment of the questions' validity and reliability of the data that will be gathered.

The pre-testing for this study was done by using colleagues and friends of the researcher who are in the shipping and logistics sector. A weekend luncheon was organized by the researcher during which the participants (friends and colleagues) assisted in establishing the content validity, layout and wording of the questionnaire. With regards to reliability of the questionnaire, a technique known as Test-retest method was used. Bryman et al 2003; and Sekaran (2003) mentioned simplicity in the use and analysis as merits of the Test-retest method.

After an effective pre-testing exercise, the questionnaire was given thorough refining and distributed to the targeted respondents with a covering letter (Appendices 3 & 4).

4.8 ANALYTICAL METHODOLOGIES

Parametric and Non-parametric are the two most recognized statistical methods employed in the analysis of research data. The point of distinction between the two methods is that, parametric technique makes assumptions about the shape of the population distribution whereas non-parametric on the other hand do not have such stringent requirements, as they do not make assumptions about the population distribution (Pallant 2001).

The non-parametric technique is very ideal in situations where the sample data is very small and fail to meet the assumptions of parametric methods. Since the sample size (30) of this

study is very small, data analysis will be executed using the following non-parametric techniques:

- ✓ Pearson's chi-square test: - to statistically test the association between variables
- ✓ Friedman test: - to rank the variables
- ✓ Spearman rank order correlation: - to measure correlation between ranks (McClave et al 2001).
- ✓ Kendall's W test: - to test the coefficient of concordance

To analyze the interdependence between variables, this study will include cross-tabulation of data as one of the analytical methodologies. The computer programme intended for analysis of data is the SSPS (Statistical Package for Social Science).

4.9 SUMMARY

In the course of this chapter, the research's conceptual model was evolved with a thorough of the research methodology. Mention was made of the types and sources of data needed to undertake the study, with an examination of the sample population. All statistical methods chosen by the researcher to analyse data and test the designed hypotheses were discussed.

Presentation of data and analysis of the research results will be presented in the next chapter. Testing of the research hypotheses will also be undertaken in the chapter.

CHAPTER 5 ANALYSIS OF DATA AND RESULTS

5.1 INTRODUCTION

In chapter one of this study, the research problem to be investigated was outlined. The relevant literature review was then done in chapter two alongside the identification of “gaps”; which the researcher explored to address the identified problem statement. Chapter three gave us an explicit account of trade facilitation within the Ghanaian port industry. The research methodology was examined in chapter four. In Chapter five, this study will undertake the testing of research hypotheses that were outlined in section 1.2. Statistical analyses of data that was obtained will be done using computer software packages.

5.2 RESPONSE RATE

The researcher distributed a total of 100 questionnaires to the target sample population. A total of 30 valid responses were received by the researcher as at August 20, 2010. This meant that about 30% of useable response rate was recognized. The questionnaires were answered by different set of businesses ownerships within the Ghanaian port industry. In Table 8 and 9, the spectrum of respondents according to business sector and a cross-tabulation of type of ownership have been respectively presented.

Table 8 Spectrum of Respondents by business sector

Business Sector	Frequency	Percent
Shipper	6	20
Freight Forwarder	11	36.7
Shipping lines	6	20
Terminal operator	4	13.3
Logistics service provider	3	10
Others	0	0
Total	30	100

Source: Author

Table 9 Cross-tabulation (Type of Ownership)

Business Sector	Type of Ownership				
	Joint Venture	Limited Liability	Partnership	Sole Proprietor	Total
Freight Forwarder	1	0	5	5	11
Logistics Service Provider	0	2	1	0	3
Shipper	1	3	0	2	6
Shipping Line	0	6	0	0	6

Terminal Operator	1	3	0	0	4
Total	3	14	6	7	30

Source: Author

5.3 Data analysis and testing of hypotheses

5.3.1 Testing of hypothesis (H1)

In **Section 2.3.2**, the identified research “gap” is hypothesized and labelled as (**H1**). To test the hypothesis, research question 1 was designed to solicit the view of respondents. The hypothesis and its accompanying research question are found in the box below.

H1 Institutional failure is more to be blamed for the GGWP’s underperformance (that is inability to fully meet the original objectives).

Question 1

Which of the following factors constitute a major setback to realization of the Gateway Project’s objectives?

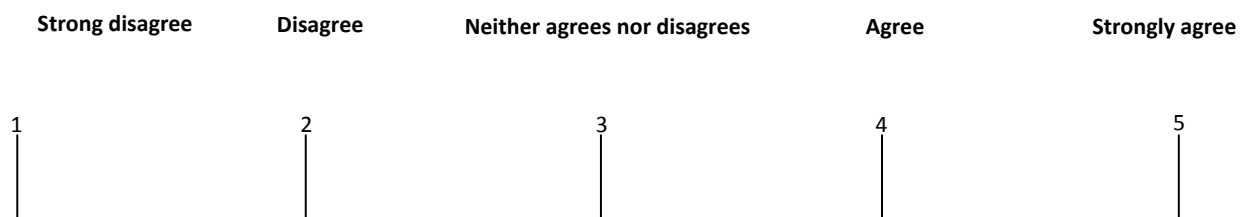
In table 10 below, the results of research question 1 has been statistically organized and presented. A sample population of 30 responded to the question above. “*Institutional bottlenecks (CEPS, DICs, etc)*” accounted for an arithmetic average (mean) of **3.50**. If the arithmetic mean of 3.50 is rounded-up to an integer on a **5-point Likert Scale** as shown in Figure 5.1, it will rest on ‘Agree’ (i.e. point 4).

Table 10 Descriptive Statistics - Arithmetic Mean

	N	Minimum	Maximum	Mean	Standard Deviation
Infrastructural constraints	30	1	5	3.23	1.194
Institutional bottlenecks (CEPS, DICs, etc)	30	2	5	3.50	1.196
Political interference	30	1	5	2.77	1.305
Lack of funds to execute umbrella projects	30	1	5	3.13	1.332
Misplaced Objectives	30	1	5	2.87	1.306
Valid N (listwise)	30				

Source: Author

Figure 5.1 a 5-Point Likert Scale



Source: Author

The researcher decided to employ **arithmetic mean** to test the research question because he discovered that many renowned studies kept faith with it. Canavos and Miller, 1999 explained that arithmetic mean is the most easily understood ‘average’ and relatively simple to calculate. However, arithmetic mean tends to be at its weakest when a few outliers exist within the dataset at one end of the range of data. Mendendall et al 1993 observed that when outliers are within the dataset, they ‘pull’ the mean towards them and this renders the mean unrepresentative of the dataset as a whole.

The weakness within the arithmetic mean prompted the researcher to test the co-efficient of agreement among respondents employing the **Kendall’s W Test** as illustrated in table 11a and 11b. The co-efficient is ‘W’ and it ranges from 0 to 1; with 1 indicating complete inter-rater agreement and 0 symbolizing an absolute disagreement among respondents (www2.chass.ncsu.edu). Table 11a shows that, the Kendall’s co-efficient of concordance (a) is 0.101 and the corresponding mean rank in table 11b is 3.62 for ‘*institutional bottlenecks (CEPS, DICs, etc)*’. The .101 coefficient of concordance denotes quite a feeble agreement among the respondents.

The cross-tabulation in (appendix 7 a) indicates that 67% of shippers and 36% of freight forwarders are in agreement with the assertion that *institutional failure is more to be blamed for the GGWP’s underperformance (that is inability to fully meet the original objectives)*. However, 45% of freight forwarders disagree. Despite the assurance that was given to respondents from the freight forwarding sector by the researcher about secrecy of their filled questionnaire, it became evident that most of them were cautious with their response to question 1 as it had to do with authorities like the Customs Excise and Preventive Service (CEPS). This greatly influenced the answers given to that effect.

Table 11a Kendall's W Test: (H1)

N	30
Kendall's W(a)	.101
Chi-Square	12.074
df	4
Asymp. Sig.	.017

a. Kendall's coefficient of concordance

Source: Author

Table 11b Kendall's Mean Ranks: (H1)

	Mean Rank
Infrastructural constraints	3.20
Institutional bottlenecks (CEPS, DICs, etc)	3.62
Political interference	2.55
Lack of funds to execute umbrella projects	3.07
Misplaced Objectives	2.57

Source: Author

After careful examination of the coefficient of concordance above, we can conclude that the hypothesis (**H1**) is accepted by the respondents regardless of the feeble coefficient of agreement.

5.3.2 Testing of hypothesis (H2)

Research hypothesis (**H2**) and ‘question 2’ in the box below, was designed by the researcher to investigate the research ‘gap’ identified in Section 3.3.1.5.

H2 There is not much difference between the Pre-GGWP and Post-GGWP bottlenecks; and the human element is an underlying factor.

Question 2

The following factors currently militate against efficient trade flow through Ghanaian Seaports.

In Table 12a, the Kendall's mean ranks are illustrated. "*Incompetence among stakeholders*" is the highest ranked variable among the list. From the 30 valid responses (i.e. Appendix 7b), 82% of freight forwarders and 67% of shippers concur that the variable "*Incompetence among stakeholders*" militate against efficient trade flow through Ghanaian seaports. In succession after the highest ranking variable are "*Bribery and Corruption*" and "*Cumbersome Customs Procedures*" which inhibit the efficient flow of trade through Ghanaian ports and other entry points.

Table 12a Kendall's Mean Ranks: (H2)

Variables	Mean Rank
Bribery and Corruption	4.12
Cumbersome Customs Procedures	4.03
Inadequate cargo handling facilities	3.03
Incompetence Among Stakeholders	4.32
Sabotage by antagonists of the GGWP	2.98
Lack of funds for infrastructure	2.52

Source: Author

In table12b we see that the **0.206** Kendall's coefficient of concordance illustrates some degree of agreement among the respondents. This value measures the inter-rater agreement of respondents. Based on the degree of inter-rater agreement, we can say that the hypothesis has been accepted.

Table 12b Kendall's W Test: (H2)

N	30
Kendall's W(a)	.206
Chi-Square	30.926
Df	5
Asymp. Sig.	.000

Source: Author

5.3.3 Testing of hypothesis (H₃)

The box below contains the hypothesis to be tested. In the first place, ‘question 3a’ was crafted by the researcher to ascertain how respondents will rate current achievements of the GGWP from a list of achievements.

H₃. There is a significant association between achievements chalked under the GGWP and the perceptions and expectations of respective stakeholders (logistics service providers, hinterland users, shippers, freight forwarders, MDAs, etc)

Question3a The GGWP has made the following achievements since its inception

It became important to know the degree of agreement among raters; hence the researcher employed a Friedman test in order to rank the achievements. Table 13a illustrates the result that came out after the test was conducted. The highest ranked achievement among the list that was provided to respondents is “*lessen degree of physical cargo inspections*”. This was sequentially followed by “*reduce political (public) interference*”, “*increased rate of cargo clearance*” and “*made clearance less cumbersome*”. The cross-tabulation (i.e. Appendix 7c) denotes 82% of freight forwarders and 50% of shippers stalwartly agree that “*less degree of physical cargo inspections*” ranks high among the list of GGWP achievements.

Table 13a Friedman Test-Mean Ranks: (H3)

	Mean Rank
Increase rate of cargo clearance	5.28
Made clearance less cumbersome	4.87
Improved revenue collection targets	4.73
Lessen degree of physical cargo inspections	6.80
Reduce political (public) interference	6.08
Infrastructural expansion (terminals, road, etc)	2.13
Increase in volume of exports	3.13
Reduction in bribery and corruption	2.97

Source: Author

Research ‘question 3b’ in the box below was designed to know the expectations of stakeholders with regards to achievements of the GGWP. To this end, respondents were asked to rank in the order of preference (importance) the achievements they expect from the GGWP.

Question 3b Rank the achievements stakeholders will prefer the GGWP to attain:

It can be seen from the Friedman mean rank in table 13b that respondents rank “*Eradicate bribery and corruption*” as the most sought-after achievement they expect the GGWP to achieve. The mean rank has also given a vivid insight into how much importance

stakeholders attach to “*eliminate physical examination of cargo*”, “*instil professionalism in industry practitioners*” and “*reduce cost of doing business*”.

Table 13b Friedman Test - Mean Ranks: (H₃)

	Mean Rank
Increase in trade volume	3.28
Eradicate Bribery and Corruption	6.05
Eliminate Physical Examination of cargo	4.82
Instil Professionalism in Industry Practitioners	4.80
Customs Valuation –related problems	4.25
Eliminate Government Interference	3.97
Provide more infrastructures	4.17
Reduce cost of doing business	4.67

Source: Author

This questionnaire (3a and 3b) is to expose any discrepancy existing between the actual current state of the GGWP and what stakeholders desire. In questionnaire 3a, stakeholders feel that the GGWP has helped in *lessening physical cargo inspections* at Ghanaian ports and *increased the rate of cargo clearance from the ports* as well. However when it came to selecting what stakeholders desire of the GGWP in question 3b, they chose the *eradication of bribery and corruption over elimination of physical cargo inspection*. The means that hypothesis 3 has been rejected by the respondents as it became clear that what stakeholders desire the GGWP to achieve is not exactly what has been achieved so far. For instance, they have wished *bribery and corruption is eliminated, the cost of doing business is reduced* as compared to *reduction in the amount of physical cargo inspections*. In other words, the statement (H₃) that “*there is a significant association between achievements chalked under the GGWP and the perceptions and expectations of respective stakeholders (logistics service providers, hinterland users, shippers, freight forwarders, MDAs, etc)*” has not been accepted as the response given in question 3a is incongruent to that in 3b.

5.3.4 Testing of Hypothesis (H₄)

The literature review identified that lack of training for personnel at the helm of affairs have had a negative bearing on trade facilitation through Ghana’s Port system. To investigate this research ‘gap’, research question 4 was designed to test hypothesis 4 shown in the box below.

H₄ Lack of Training for Personnel at the helm of affairs has a bearing on trade facilitation through Ghana’s Port system.

Question 4 The following factors impact on the speed and efficiency of trading at Ghanaian frontiers

A Kendall's test was conducted and respondents rank *"low level of competence among trade officials"* high with a mean value of **4.18**. The result of this test is illustrated in Table 14a below. The other ranked variables are *"under manning due to insufficient officials"*, *"Numerous trade regulations and requirements"* and *"excessive political interference"* respectively. The cross-tabulation in appendix 7d shows that 73% of freight forwarders and 67% of shippers strongly agree that *"low level of competence among trade officials"* creates a negative impact on the speed and efficiency of trading at Ghanaian frontiers.

Table 14a Kendall's Mean Ranks: (H₄)

	Mean Ranks
Numerous trade regulations and requirements	2.70
Excessive Political Interference	2.40
Under manning due to insufficient officials	3.37
Low level of competence among trade officials	4.18
Poor facilities	2.35

Source: Author

Since low level of competence has a strong relationship with lack of training, we can say at the moment that this hypothesis has been accepted; but the researcher will want to give further proof to such an assertion, by obtaining the inter-rater agreement of respondents using the Kendall's statistical test of coefficient of concordance. As stated in earlier testing, the Kendall's coefficient 'W' ranges from 0 to 1; where 1 is an indication of complete agreement and 0 means complete disagreement among the raters.

Table 14b shows .339 as Kendall's coefficient of concordance. Hence we can say that there is agreement among the respondents hence an acceptance of the hypothesis (H₄).

Table 14b Kendall's W Test

N	30
Kendall's W(a)	.339
Chi-square	10.685
df	4
Asymp. Sig	.000

a. Kendall's Coefficient of Concordance

Source: Author

5.3.5 Testing of Hypothesis (H₅)

It was evident in the literature review that most countries in the developing world focus on infrastructure when it comes to trade facilitation, rather than the human element. The research question in the box below is intended to investigate whether a trade facilitation

initiative like the GGWP is tilted towards infrastructure (road, terminal, etc) or institutions (H₅).

H₅ Under the GGWP there is objectively, an overwhelming focus on systems (infrastructure) rather than the institutions that steer these systems.

Question 5

One of the following do not fall under the GGWP's scope

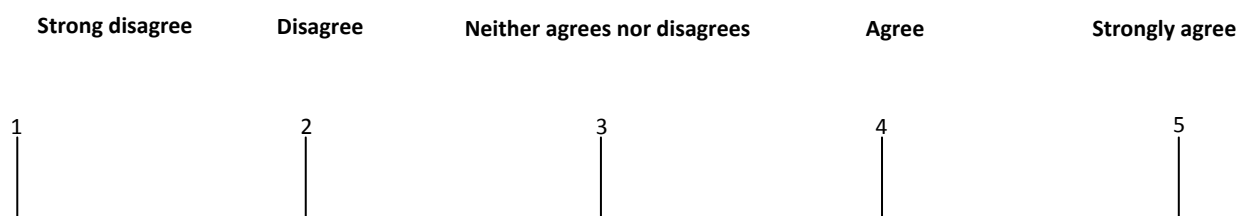
The response gathered from our 30 participants led to the results illustrated in table 15. "Training and Orientation for Stakeholders" accounted for an arithmetic average (mean) of **3.50**, which will be 4 when rounded-up to an integer on a **5-point Likert Scale**

Table 15 Descriptive Statistics - Arithmetic Mean

	N	Minimum	Maximum	Mean	Standard Deviation
Infrastructural Expansion (ports, roads, railways, CFS, etc)	30	1	5	3.23	1.194
Training and Orientation for Stakeholders	30	2	5	3.50	1.196
Modernization of Cargo Clearance (IT)	30	1	5	2.77	1.305
Port dwell-time Reduction	30	1	5	3.13	1.332
Privatization of Port Operations	30	1	5	2.87	1.306
Valid N (listwise)	30				

Source: Author

Figure 5.2 a 5-Point Likert Scale



Source: Author

The researcher had wanted to conduct further testing of the hypothesis 5 by employing a Kendall's W Test; but realized that it will not make much sense as table 15 plus the conclusion drawn from testing hypothesis 1 clearly indicates an overwhelming focus on infrastructure under the GGWP. Under hypothesis 1, respondents agreed that "institutional bottlenecks" is to be blamed for failure of the GGWP; an assertion which seem to be in concordance with table 15, where respondents picked "training and orientation for stakeholders" as an item which does not fall under the GGWP. This researcher believes that institutional bottlenecks wouldn't have been a challenge, had training and orientation for stakeholders been given the needed level of attention under the GGWP. It can therefore be said that hypothesis 5 has been accepted by the respondents.

5.3.6 Testing of Hypothesis (H₆)

The goal of research 'question 6' is to probe the relationship between attitude of trade officials at Ghanaian frontiers and how this influences cargo flow (trade efficiency).

H6 There is a degree of relationship between the attitude of trade officials and cargo flow in Ghanaian ports and the overall port performance (efficiency).

Question 6a

Presently, trade and port officials at Ghanaian trade frontiers can better be described as (please rate from the list below):

For an effective analysis of the question above, the researcher asked respondents to rate from a list of possible manners that could be exhibited by trade officials like Customs and Excise, port authority officials, government officers, etc. The behaviours (manners) from which respondents were expected to make a choice had the potential to either negatively or positively influence cargo flow in Ghanaian ports as well as the overall port performance (efficiency of trade).

When a Kendall's mean ranking of the data was conducted, it showed (i.e. table 16a) that "*unprofessional (corrupt)*" is the behaviour that best describes the present attitude of port and trade officials at Ghanaian frontiers. The Kendall's mean rank value of this character is **4.38** as indicated in table 16a.

Table 16a Kendall's Mean Ranks: (H6)

	Mean Rank
Unprofessional (corrupt)	4.38
Least Professional(unethical)	3.83
Less Professional (indifferent)	3.84
Professional (supportive)	3.22
More Professional(reliable)	2.33
Most Professional (integrity)	3.40

Source: Author

A Kendall's coefficient of concordance with the results shown in table 16b was conducted to test the extent of agreement among raters. It was realized that there is a feeble agreement among raters due to the Kendall's coefficient of concordance value – **0.205**. From the cross-tabulation results, 50% of liner shipping companies agreed to the hypothesis. However, 27.2% and 16.7% of freight forwarders and shippers respectively disagreed.

Table 16b Kendall's W Test: (H6)

N	30
Kendall's W (a)	.205
Chi-Square	29.892

df	5
Asymp. Sig.	.000

a. Kendall's Coefficient of Concordance

Source: Author

The desire to know what behaviour pattern stakeholders will want trade officials to exhibit, led to the creation of question 6b by the researcher. In this case, respondents were asked to rank in order of preference as to which behaviour pattern they expect.

Question 6b

As stakeholders of trade facilitation, specifically the GGWP, rank the behaviour pattern you would prefer from trade as well as port officials.

After subjecting the collected data to a Kendall's Mean Ranking, the result that was realized can be seen in table 16c.

Table 16c Kendall's Mean Ranks: (H6)

	Mean Rank
Unprofessional (corrupt)	3.52
Least Professional(unethical)	3.73
Less Professional (indifferent)	3.93
Not within the list	2.43
Professional (supportive)	4.05
More Professional(reliable)	4.97
Most Professional (integrity)	5.37

Source: Author

It became clear from the results of data analyzed under question 6a that respondents have realized how the “*unprofessional (corrupt)*” behaviour of trade and port official can negatively influence port efficiency; hence when it came to ranking by preference under 6b, they chose a character which they deem a necessary ingredient in the move towards trade efficiency at Ghanaian ports. This is a vivid testament that the research ‘hypothesis 6’ has been accepted by the respondents.

5.3.7 Testing of Hypothesis (H₇)

In **section 2.3.2** the literature review identified a research ‘gap’ within the implementation of trade facilitation initiatives which has the potential to determine whether these programmes will be a success or not. The research **question 7** – in the box below require respondents to rate from a list of possible factors which have the propensity to enable the GGWP meet its objectives. The aim of the researcher is to use the responses to test hypothesis (H₇).

H7 The success of trade facilitation programmes in developed economies is the product of institutional efficiency and focus on the human element (training and upgrading of responsible officials)

Question 7

Ability of the GGWP to fully meet the objectives for which it was launched is dependent on:

The result from respondents on question 7 is statistically presented in table 17a after conducting a Kendall's test of the data. The variables "*Institutional reforms (CEPS, DICs, etc)*" and "*Providing Relevant training to Officials and Stakeholders*" have a mean rank value of **3.98** and **3.55** respectively. The lowest mean value of **1.83** was scored by "*Privatization of Key Operations*".

Table 17a Kendall's Mean Ranks: (H₇)

	Mean Rank
Providing Relevant training to Officials and Stakeholders	3.55
Massive Investment in infrastructure (terminals, roads, railways, etc)	2.83
Streamlining Cargo Clearance (IT)	2.81
Privatization of Key Operations	1.83
Institutional reforms (CEPS, DICs, etc)	3.98

Source: Author

Table 17b Kendall's W Test: H₇

N	29
Kendall's W (a)	.373
Chi-Square	43.316
df	4
Asymp. Sig.	.000

a. Kendall's Coefficient of Concordance

Source: Author

Further testing of hypothesis (H₇) was done by conducting a Kendall's W Test to ascertain the extent of inter-rater agreement. The test results in table 17b shows **0.373** as the coefficient of concordance, a figure which denotes agreement among the raters. It can therefore be said that **hypothesis 7** has been accepted, albeit weakness of the agreement.

5.3.8 Testing of Hypothesis (H₈)

In **section 2.3.1** identified bribery and corruption was identified as one major causes of increase in the cost of trading in developing economies; thus hampering trade facilitation initiatives. The aim of **hypothesis 8** is to ascertain whether bribery and corruption is an issue within Ghana's port industry; and also know to what extent it is affecting trade facilitation

initiatives like the Ghana Gateway Project (GGWP). To test the hypothesis, research **question 8** in the box below was designed.

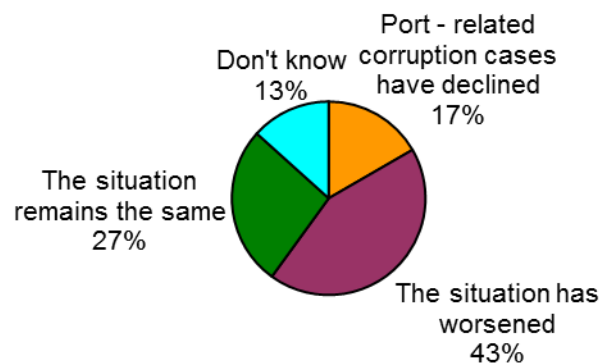
H₈ Corruption among Customs Officials, Security Agencies and Port Officials is also causing problems for the Ghana Gateway Project.

Question 8

Which of the following best describes the perception about corruption among customs, port officials and security agencies within Ghana's port industry over the last 3 years (2006-2009)?

Under research question 8, respondents were given four options and asked to chose which one best describes corruption within Ghana's port sector. Figure 5.3 shows the results of responses received.

FIGURE 5.3 PERCEPTION ABOUT CORRUPTION AMONG CUSTOMS, PORT OFFICIALS AND SECURITY AGENCIES WITHIN GHANA'S PORT INDUSTRY OVER THE LAST 3 YEARS (2006-2009)



- Port related corruption cases have declined
- The situation has worsened
- The situation remains the same
- Don't know

We can clearly infer from the results displayed that it gives a perception by majority that corruption within the port sector among relevant officials is on the increase, as **43%** feel that corruption has worsened. Since respondents overwhelmingly feel that corruption among trade officials has worsened, it can be said that **hypothesis 8** has been accepted as the results indicate that it is an issue.

5.4 DISCUSSION OF FINDINGS

In addition to the problems (findings) mentioned in **section 3.4.1.5** below is further discussion of findings that were made during the study and testing of the hypotheses:

5.4.1 Institutional failure – its role in the GGWP's underperformance

Under the data analysis, *“institutional failure”* was rated as the factor *which* is more to be blamed for the GGWP's underperformance (that is inability to fully meet the original objectives). Many shippers who were interviewed by the researcher mentioned bribery and corruption as one of the major reasons for failure of trade-related institutions in Ghana. Apart from shippers, interviewed freight forwarders also admitted that the Customs Excise and Preventive Service (CEPS) is a leading culprit with regards to bribery and corruption at Ghanaian entry and exit points.

Specific mention was made of illegal practices where CEPS officials demanded what is known in the local parlance as *“goro”* (money extorted to facilitate the processing of their declarations) before attending to cargo processing documents. Despite introduction of the Ghana Community Network (GCNet) – an electronic cargo clearance facility, this practice of *“greasing the palm”* of CEPS officials have not ceased leading to lack of transparency within the existing clearance system. Deficiency in the provision of requisite training for other government institutions like Ghana Standards Board (GSB) and the Ghana Forestry Commission (GFC) has led to unnecessary delays at the ports. Ghana Ports and Harbours Authority (GPHA) is also a key stakeholder of the GGWP and they have institutional challenges such as inappropriate port management system, overstaffing and low staff morale.

5.4.2 Bottlenecks within the Ghana Gateway Project (GGWP)

Incompetence among stakeholders, bribery and corruption, cumbersome customs procedures, etc was identified as major bottlenecks within the Ghana Gateway Project (GGWP). In ranking them, *“incompetence among stakeholders”* was the highest ranked variable. All stakeholders of the GGWP were presented in figure 3.4 of the research. Of all identified stakeholders, the researcher through his experience within the Ghanaian port industry and conversation with renowned colleagues realized that incompetence was quite rife among freight forwarders and logistics service providers. It became evident that the staffs of most freight forwarding firms in the country have not been given the needed level and requisite of training. Most of them are high school leavers who joined either a family business or start a *“suite case”* freight forwarding company. Even though there is a professional freight forwarding association like the Ghana Institute of Freight Forwarders

(GIFF), several of their members allow unregistered companies to clear goods through customs using their stamps and identification numbers. Unfortunately, customs do not have a mechanism to check the phenomenon.

This lack of adequate control over freight forwarding and logistics companies in Ghana has led to the entry of “*quacks*” into this sector, spiralling the degree of incompetence already prevailing. Also, this wind of incompetence among Ghanaian freight forwarders has given birth to increase in customer complaints, unprofessional practices (extortion of money from clients by prying on their ignorance - levying of illegal charges, etc), increase in cost of doing business, among others. It is important to mention here that, the aforementioned challenges posed by incompetence among freight forwarders and other stakeholders naturally defeat the very objectives for which the Ghana Gateway Project (GGWP) was rolled out.

Lack of adequate control is also evidenced by the ease with which unlicensed freight forwarders enter into the port of Tema and Takoradi as traders and then begin to transact business as soon as they enter the port. Some even connive with other licensed freight forwarders to smoke them into the port as residual dock labour. The resultant effect is a worsening case of incompetence of which most traders complain about.

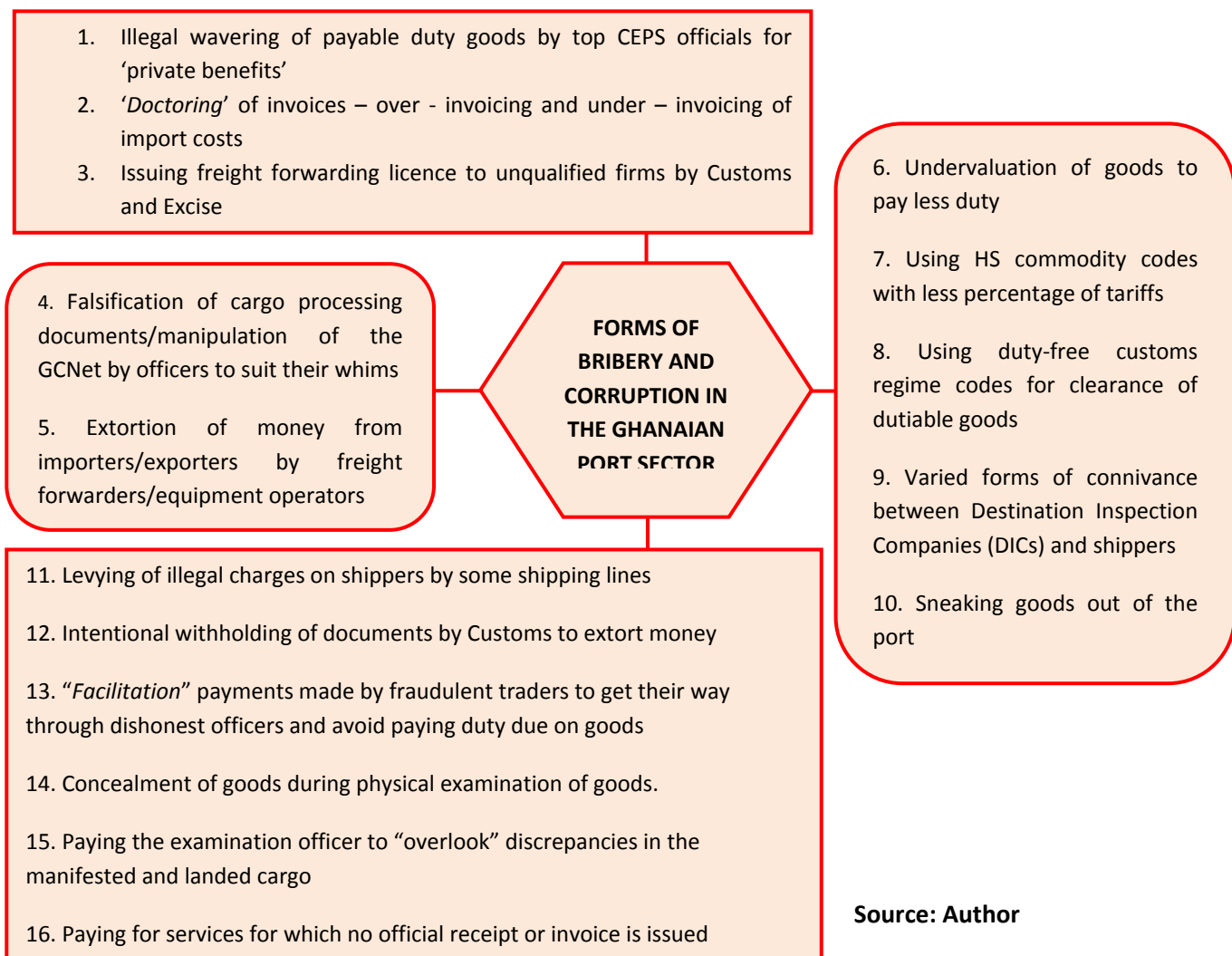
5.4.3 The GGWP – Perceptions and Expectations of Respective Stakeholders

It was evident during the data analysis that respondents rejected **hypothesis 3**; an outcome which strongly suggests a discrepancy between actual current state of the GGWP and what stakeholders are expecting. Lessening physical cargo inspections is surely an honourable achievement by the GGWP but on the part of stakeholders, eradication of bribery and corruption as well as reduction in the cost of doing business is what sums up their expectations.

Since its inception, the GGWP has made significant inroads by reducing the amount of time spent in clearance of goods, reduction in public interference, etc; but when this is measured against the yardstick of stakeholder expectations, it leaves much to be desired. **Table 4** for instance gives a clear trend of increase in the cost of importing or exporting at Ghanaian ports. Also, bribery and corruption in various forms has plagued trade facilitation in the country; with figure 5.4 giving a list of the main ones.

Bribery and corruption within Ghana’s port sector can be described as a canker which is seriously eroding most benefits accruing to trade facilitation in the country. On average, 70 per cent of all invoices submitted to the inspection companies are forged including even the supposedly reputable companies in the import trade (Deputy Minister of Trade and Industry, Ghana – February, 2010).

Figure 5.4 FORMS OF BRIBERY AND CORRUPTION IN THE GHANAIAN PORT SECTOR



5.4.4 The GGWP – Focus on Systems (infrastructure) rather than Institutions

When hypothesis 5 was tested, respondents picked *"Training and Orientation for Stakeholders"* as an item which has not been sufficiently covered by the Ghana Gateway Project (GGWP). During desk research, it was discovered that existing literature on trade facilitation, especially those related to African countries do place emphasis on

infrastructural development without given due consideration to the human element. In table 7, the researcher described how he thoroughly perused the GGWP contract document prepared by World Bank; and it was discovered that even though the project dossier mentioned various trade-related institutions in the country, a definite action plan was not given on how these institutions will be given the needed kind of reform. The document only mentioned the provision of infrastructure such as IT to institutions like Customs Excise and Preventive Service (CEPS), Ghana Shippers Authority (GSA), Ghana Ports and Harbours Authority (GPHA), etc without giving details on training and organizational re-structural.

It became evident during the study that the success of trade facilitation initiatives including the GGWP, is borne out of the combination of both infrastructural and institutional elements due to the following:

- Weak infrastructure and institutions, however, contribute to high trade costs along the logistics chain in Sub-Saharan African countries....Recent research has focused on the channels through which institutions impact trade. Anderson and Marcouiller (2002) find that weak institutions act as significant barriers to international trade (Wilson et. al, 2008).
- Speed-to-market crucially depends upon the quantity and quality of trade and trade-related institutions and physical infrastructure (Subramanian and Matthijs, 2007).
- Weak institutions are evident in widespread corruption at various points in the supply Chain (Gatti 2004).
- In some case increasing efficiency of border procedures may require simple re-organisation of tasks and procedures, whilst in others it might require investment in infrastructure and human resources (Milner et. al, 2005).
- It is critical for Sub-Saharan Africa countries, especially landlocked countries, to have modern and efficient trade facilitating institutions and physical infrastructure to be able to compete successfully in global markets where growing value is being placed on fast order-to-delivery cycles (Milner et. al, 2005).

5.4.5 Impact of the Attitude of Trade Officials on Cargo Flow and Overall Port Performance

Respondents in their reaction to question 6 pointed out *“unprofessional (corrupt)”* as the attitude which best describes attitude of trade officials at the ports and other frontiers of Ghana. Wilson et al, 2007 opined that, *“Corruption does not exist in a vacuum, but is the outcome of a complex set of interactions among traders and officials, taking place against the background of national trade policy choices”*. During a couple of interviews that were conducted among the spectrum of stakeholders within Ghana’s port industry, most participants complained about how the extortion of money from them by Customs and Excise officials and other practices negatively thwarts all efforts aimed at facilitating trade.

It is rather unfortunate that those who are expecting the GGWP to meet its objectives are the very people perpetrating the act of corruption. The tendency of traders and freight forwarders bribing Customs and Excise officials is very high due to the use of false

documents in cargo clearance, desire to pay less duty (tax evasion), etc. It was also discovered during the interviews that majority of institutional failure being experienced under the GGWP has bribery and corruption between trade officials and traders as its root cause.

This researcher believes that corruption as an attitude among trade officials in Ghana can single-handedly erode benefits that stakeholders expect to derive from the GGWP due to the following findings:

- *Corruption* and interest groups capture can lead to regulatory barriers (such as market access restrictions, technical regulations, and customs regulations) – Wilson and Portugal-Perez, 2008.
- High entry barriers are associated with higher levels of *corruption* and informal economies, not with better quality of goods and services (Djankov et al, 2001).
- The business community tends to criticize border agencies on the ground that their procedures and practices ..., and they suffer from inefficiencies and *corruption*, which raise the costs of doing business (UNCTAD/WTO, 2005).

5.4.6 Trade Facilitation and Institutional Efficiency

The difference that exists between developed and developing economies with regards to the implementation of trade facilitation initiatives is the level of institutional efficiency. Institutional efficiency is synonymous to successful trade facilitation and vice versa. In the testing of hypothesis 7 it was discovered that Ghana like other developing countries have a problem with the level of efficiency in their institutions that facilitate trade. The problem as was given by interviewees is that institutional core competencies and capacities were not built for long-term duration of the Ghana Gateway Project (GGWP). Whilst the specialized skills and managerial expertise required for such projects was often lacking within the public services, the public sector could also not retain the specialists as it could not compete with the better conditions of service provided by the private sector.

Weak institutions are evident in widespread corruption at various points in the supply chain (Wilson et al, 2008). The lack of efficiency among trade-related institutions in Ghana is grossly fuelled by bribery and corruption among major players within the country's port industry.

5.5 LIMITATIONS

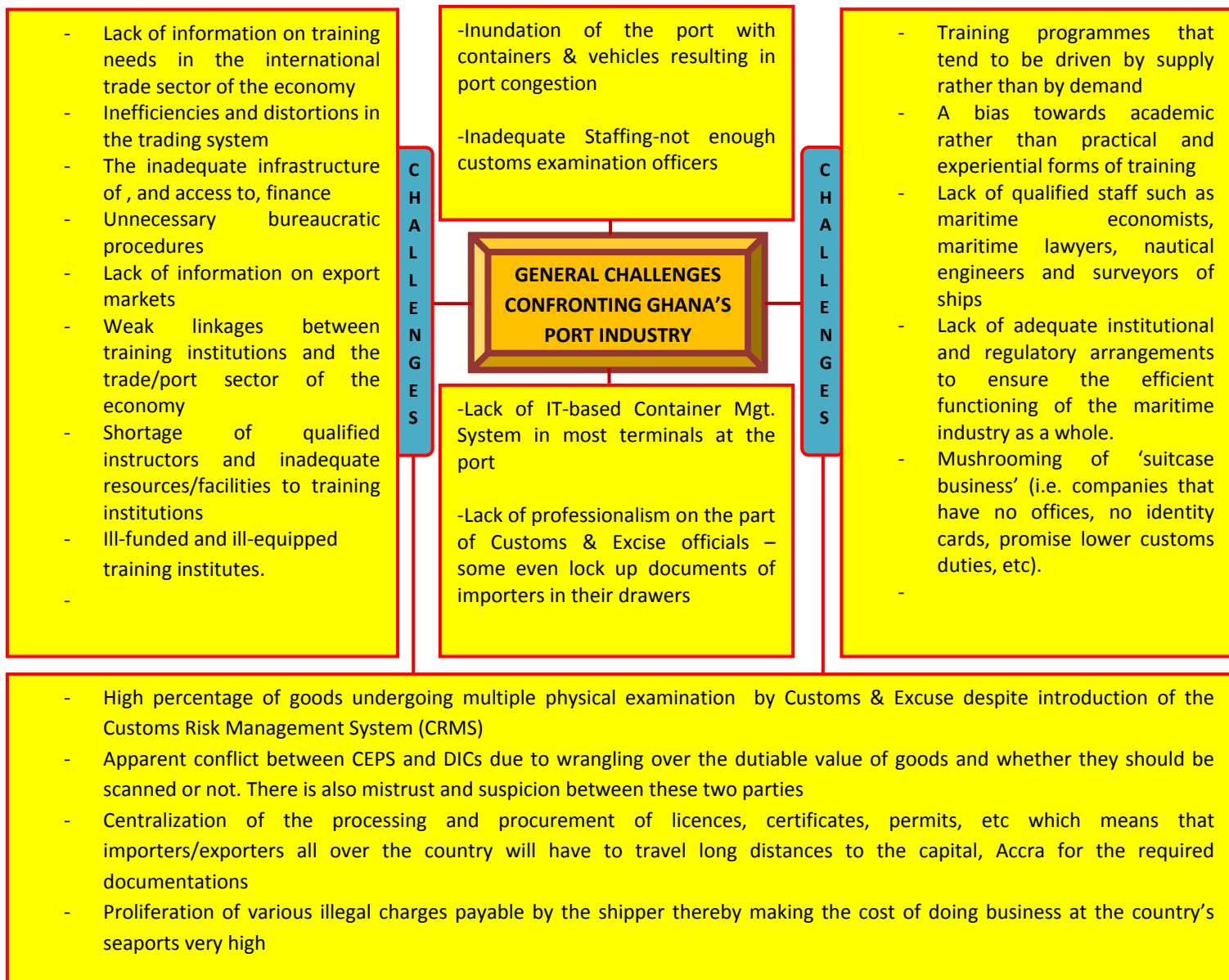
The study has provided insights into trade facilitation in Ghana as well as the country's port industry. Deficiencies such as the low response rate (30), limited in-depth analysis, etc has rendered the study less than completely perfect. It is however important to mention here that, some of the findings confirm existing theories and paradigms. An example can be cited

of bribery and corruption which is a phenomenon in developing countries, and its impact on the implementation of trade facilitation initiatives. Furthermore, the study agrees with the theory that countries with weak and less efficient trade institutions have difficulties in administering trade facilitation schemes.

5.6 THE GENERAL ISSUES AND CHALLENGES CONFRONTING GHANA'S PORT INDUSTRY

The researcher decided to give a glimpse into general issues/challenges that are confronting Ghana's port industry. These challenges are presented in figure 5.5.

Figure 5.5 GENERAL ISSUES AND CHALLENGES CONFRONTING GHANA'S PORT INDUSTRY



Source: Author

5.7 SUMMARY

The researcher analyzed the data using the following non-parametric tools:

- Kendall's W Test – test the coefficient of concordance and ascertain the strength of agreement among raters
- Pearson's Chi-square test to determine the association between two variables
- Friedman test to rank variables, etc

All research hypotheses were tested and found to be accepted except H_3 , even though the strength of inter-rater agreement not quite strong. The next chapter will discuss the research conclusion and recommendations (way forward for the GGWP). Recommendations for further research will also be given.

CHAPTER 6 CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

The testing of hypotheses and data analysis undertaken was in chapter 5. This present chapter will outline the research conclusions and give recommendations. The researcher will also make proposal for a further research in this chapter.

6.2 CONCLUSIONS

Based on analysis done in previous chapters, the following conclusions have been drawn:

1. *“Institutional failure”* was rated as the factor which is more to be blamed for the GGWP’s underperformance (that is inability to fully meet the original objectives)
2. The *Customs Excise and Preventive Service (CEPS)* is a leading culprit with regards to bribery and corruption at Ghanaian entry and exit points.
3. Incompetence among stakeholders, bribery and corruption, cumbersome customs procedures, etc was identified as major bottlenecks within the Ghana Gateway Project (GGWP). In ranking them, *“incompetence among stakeholders”* was the highest ranked variable, especially among freight forwarders and logistics service providers.
4. The *lack of adequate control* over freight forwarding and logistics companies in Ghana has led to the entry of *“quacks”* into this sector, spiralling the degree of incompetence already prevailing.
5. The expectations of stakeholders under the GGWP are summed up in the *eradication of bribery and corruption* as well as *reduction in the cost of doing business* at Ghanaian ports.
6. Bribery and corruption within Ghana’s port sector is seriously eroding most benefits that may accrue to trade facilitation initiatives such as the GGWP in the country.
7. *“Training and Orientation for Stakeholders”* has not been sufficiently covered by the Ghana Gateway Project (GGWP) due to its focus on infrastructural development (i.e. not human element-centred).
8. A balanced blend of institutional and infrastructural factors is very necessary for the success of trade facilitation programmes.
9. *“Unprofessional (corrupt)”* is the word which best describes attitude of trade officials at Ghanaian ports and frontiers; and those who are expecting the GGWP to meet its objectives are the very people perpetrating the act of corruption.
10. *Institutional efficiency* is synonymous to successful trade facilitation and vice versa and this is the ingredient which creates distinction between developed and developing economies.

6.3 RECOMMENDATIONS

This researcher is of the view that recommendations below when rigorously implemented will enable the Ghana Gateway Project (GGWP) make headway with regards to meeting the objectives for which it was instituted.

1. There are numerous bottlenecks within the GGWP but with bribery and corruption as the main one, it is very crucial that this canker is dealt with to restore any real chance of the project meeting its objectives. The Government of Ghana (GoG) must establish a credible system that will reward excellence as well as integrity among customs officers and design very strong punitive measures to deal with corrupt officials. The implementation of this system must be undertaken by the Ghana Revenue Authority (GRA) with the aim of punishing all perpetrators of bribery and corruption within the country's port industry to serve as a perpetual deterrent to others who intend to collect bribes. As a body created to superintend over collectors of the nation's revenue, the GRA has been empowered legally to regulate operations of CEPS who are the focal point of corruption within the nation's port industry and they are able to sack or prosecute corrupt officials when the need arises.

Instituting an award scheme for customs officials will serve as an incentive that will inculcate the spirit of integrity in officials who will want to be recipients of such awards. In addition, the Government of Ghana must resource the GRA to enable them implement any programme designed to nip the problem of corruption in the bud among players within Ghana's port industry. As an investigatory measure, the GRA can plant some of their officials in freight forwarding companies to make them act as clearing officials and arrest Customs and Excise officials who demand for bribe before processing their documents or who intentionally delay the processing of documents to squeeze illegal money from cargo agents. In addition, the GRA must institute a programme which will ensure periodic probing of stakeholders such as Destination Inspection Companies (DICs) who are said to connive with importers to reduce the Harmonized System (HS) value of their goods to pay less duty. This exercise must be carried out in collaboration with the Serious Fraud Office (SFO) of Ghana.

2. The study identified bribery and corruption as one of the main causes of institutional failure within Ghana's port industry. Also, lack of requisite training was cited as a causative factor. Dealing with institutional failure requires massive investment in the human element of the GGWP as much of the focus for all these years have been geared towards infrastructural expansion. . It is an undeniable fact that, even if the best human resource is at the disposal of African countries, there will still be a significant need for an infrastructural presence. However, placing too much

emphasis on infrastructure has shifted attention from the root cause of trade facilitation problems in developing countries. It is important to provide requisite training to all stakeholders of the GGWP to help eradicate this menace.

Freight forwarders, logisticians need complete training (Degree/Diploma) in the mechanics of international trade, shipping/port operations and maritime business. The Ministry of Trade and Industry (MOTI) must ensure that people allowed to practice freight forwarding in the country have at least a 2 years Diploma in International Shipping and Logistics. The content of training programmes delivered (either Bachelors/Diploma/Professional) must be a hybrid of the syllabus of Chartered Institute of Logistics and Transport (CILT) - UK and the Institute of Chartered Shipbrokers (ICS) – UK. This means that there should be periodic inspection of the course content designed by shipping/trade training institutes in the country; with the Regional Maritime University, Institute of Export and Shipping Management as leading schools in that regard.

The Ghana Institute of Freight Forwarders (GIFF) and Ministry of Trade and Industry (MOTI) must collaborate and frequently organize workshops and what I will term as “trade clinics” for shippers/traders in the country. Such workshops must introduce participants (traders/shippers) to the rudiments of international trade, legal regimes under Customs and Excise, new trends in global trade, etc. With the aid of such workshops and trade seminars, traders who principally constitute the most ignorant among stakeholders are exposed to relevant issues so as to prevent the situation where freight forwarders pry on their limited knowledge to defraud them.

Government trade officials, the Customs Excise and Preventive Service need periodic training (local/international) on topics such as: Meeting Revenue Targets; Crippling Effect of Bribery and Corruption in Trade; Organizational Transformation and Behavioural Change; Information Technology, Cargo Clearance and Human Behaviour, among others. The CEPS Training Academy which is responsible for the training of Customs and Excise officials in Ghana must include lessons on the ills that bribery and corruption have on a nation’s economy. The training syllabus must include topics on psychology since most of the problems faced by CEPS are one that has to do with their mindset.

3. Also, institutional failure can be tackled using the following guidelines:
 - Strengthen Training Systems for the Port industry; the content of all training materials must be up-to-date and abreast with trends.

-
- Promote Management Training Consultancy and Research; by establishing a national database or website for trade statistics and information
 - Tailor Training Programmes to meet needs of the industry
 - Encourage the Private Sector to Establish Comprehensive Training Programmes for their own workforces, especially in the areas of new technologies and changes.

It is important to ensure institutional strengthening and capacity building for effective planning and formulation of maritime policies in the country. This demands that institutional core competencies and capacities are therefore built for long-term duration of the GGWP

4. There is the need to ensure that integrity of the Ghana Community Network (GCNet) is not breached, and to assure and enhance stakeholders' confidence in it by consistently demonstrating through its performance that it is credible and reliable. This is especially critical at a time when some existing manual revenue and security controls are being removed to facilitate trade.
5. Lack of adequate customs officials at the entry points of Ghana was mentioned in the study as factor hindering trade facilitation efforts under the GGWP. There is an urgent need for more officers and logistics to enable CEPS efficiently perform revenue functions. Limited number of customs officials at borders places pressure on them and importers or their agents will want to pay bribes to be attended to early. To recruit more graduates into the Customs Excise and Preventive Service of Ghana, the salary structure and remuneration package of officials must be revised upward to serve as an incentive to new entrants. Customs officials must be trained regularly to meet up with new challenges, due to the dynamic nature of the port industry.
6. It is very important that laws and regulations related to practice of freight forwarding in the country is reviewed or probably given a complete overhaul to reflect changes on the international stage. All laws that are considered to be obsolete and do not encourage modern freight forwarding practice should be repealed. The current freight forwarding law which is the SMCD 188 of 1978 places the duty of licensing freight forwarders into the hands of Customs and Excise alone; a provision of this law which has encouraged corruption and licensing of unqualified companies. The law must be changed to ensure that granting of licence to freight forwarders is undertaken by a joint committee composed of the Ghana Institute of Freight Forwarders (GIFF), CEPS, GSA, etc. This will ensure that the right calibre of people is granted the licence to operate as freight forwarders. Also, the law must be reviewed to ensure that the conditions under which companies are licensed is up to international standards. For instance, every company that is licensed to carry out freight forwarding in Ghana must be made to keep a list of their employees with CEPS and always update it to avoid unqualified people from using the stamp of licensed companies to clear goods at the nation's entry points. Any new law that is

made to cater for freight forwarding in the country must compel companies engaged in this noble profession to employ workers with qualifications that are up to international standards. This is necessary to weed out unscrupulous people that defraud traders and display gross incompetence.

7. The Ghana Shippers' Authority (GSA) must endeavour to organize seminars and knowledge acquisition workshops for importers and exporters very often to enable them have adequate knowledge about trade procedures in the country. This will prevent the undue exploitation of these traders by unscrupulous freight forwarders and customs officers.

6.4 COMMENTS FOR FURTHER RESEARCH

The study was not exhaustive due to the limitations mentioned before. It is recommended to perform additional research which should ensure the following:

- That large sample of data is obtained in order to make statistical analysis more robust
- That the study increases the percentage of face-to-face interactions with actors within the port industry in order to ensure that a fair judgement is made of the quality of primary data.

BIBLIOGRAPHY

Akamavi R.K.; McKevitt, A and Boateng, A. (2004) "Assessing the Francophone West Africa Market: An ETOP Analysis". *Marketing Intelligence and Planning*, Vol. 22, No. 4, pp. 455-471

Akalungba M. (2010) Global Commodities Ghana Limited, interview on 1st July, 13:00 – 14:00 hrs.

Alorsor, J. (2005) Intermodal Transport in Ghana. *Shipping Review*, 1st ed. Ghana Shippers' Authority

Amurgo-Pacheco, Alberto and Martha Denisse Pierola. "Patterns of Export Diversification in Developing Countries: Extensive and Intensive Margins." World Bank Working Paper # 4473, January 11, 2008.

Containerisation International (2004) "East-West trade cargo flow analysis". CI, July. Pp. 5-7
Heaver, D.T. (2001) "The evolving roles of shipping lines in international logistics". *International Journal of Maritime Economics*, (4) pp. 210-230.

Notteboom, T.E. (2004) "Container shipping and Ports: An overview", *Review of Network Economics*, Vol. 3, Issue 2, pp. 86-106.

Pallant, J. (2001). SPSS Survival manual: A step by step guide to data analysis using SPSS (Version 10). Open University Press

Pallis, A.; Vaggelas G.K.; Vitsounis T.K. (2007). "Improving Port Services Competitiveness: Trends, Challenges and Opportunities", Paper, XVII International RESER Conference, pp. 6-17.

Pedersen, P.O. (2001). The freight transport and logistical system of Ghana, Working paper 01.2, Centre for Development Research. Copenhagen, pp. 13-63.

Pedersen, P.O. (2003). "Development of freight and logistics in Sub-Saharan Africa: Taaffe, Morrill and Gould revisited", system of Ghana, Transport Reviews, Vol. 23, No.3, pp. 275-297.

Portugal-Perez A.; Wilson, J.S. (2008) "Why Trade Facilitation Matters to Africa?" Policy Research Working Paper No. 4719, World Bank, pp. 2, 13-33.

Portugal-Perez A.; Wilson, J.S. (April 2010) "Export Performance and Trade Facilitation Reform - *Hard and Soft Infrastructure*", Policy Research Working Paper No. 5261, World Bank, pp. 5-23.

Sanchez, R.J.; Hoffmann, J.; Micco, A.; Pizzolitto, G. V.; Sgut, M. and Wilmsmeier, G. (2003) "Port efficiency and international trade: Port efficiency as a determinant of maritime transport costs". *International Journal of Maritime Economics*, (5) pp. 199-218.

Saunders MNK, Lewis P & Thornhill A (2000) *Research Methods for Business Students* (2nd ed.), London: Financial Times Prentice Hall, Chapters 10 and 11.

Saunders, M., Lewis, P. and Thornhill, A. (2003) *Research methods for business students*. 3rd ed. Prentice Hall.

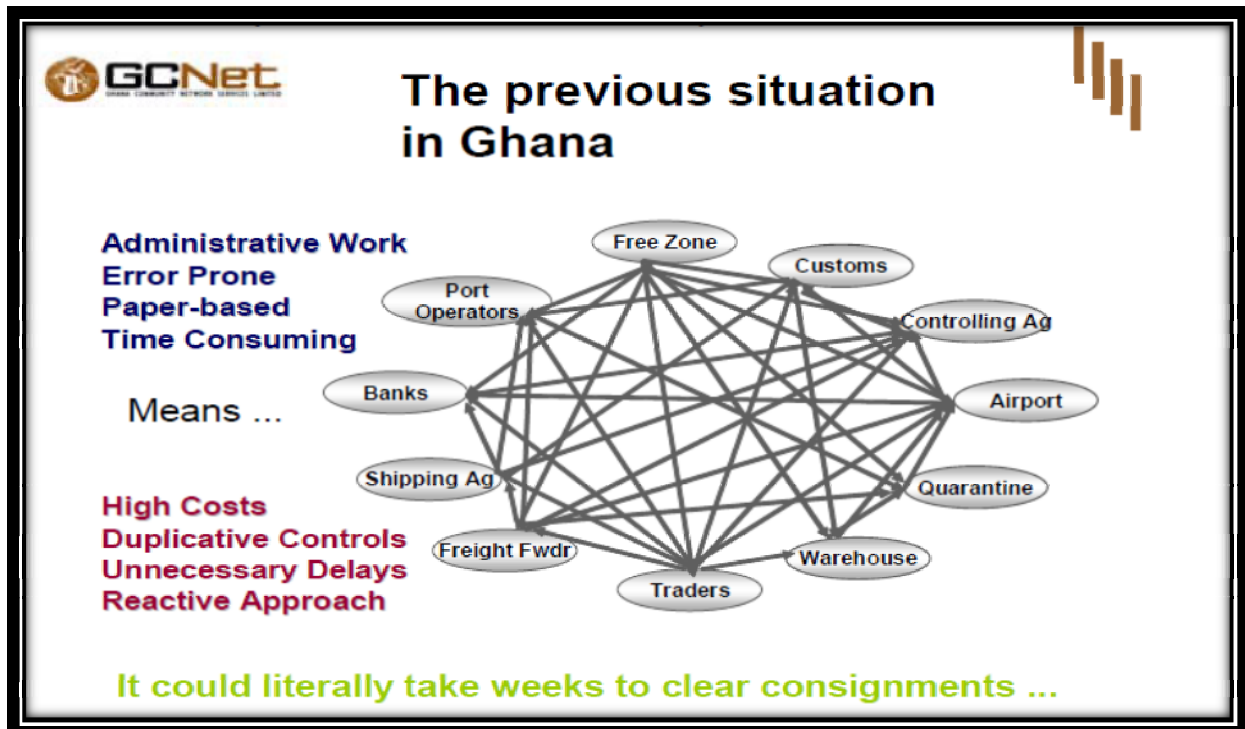
Sekaran, U. (2003) *Research Methods for business: A skill-building approach*. 4th ed. John Wiley and Sons, Inc.

Senyo, S. (2010) Maersk Ghana Limited, interview on 5th August. 13:00-15:00.

Wilson J.S.; Abe K. (2008) "Governance, Corruption, and Trade in the Asia Pacific Region". Policy Research Working Paper No. 4731, World Bank, pp. 4-5.

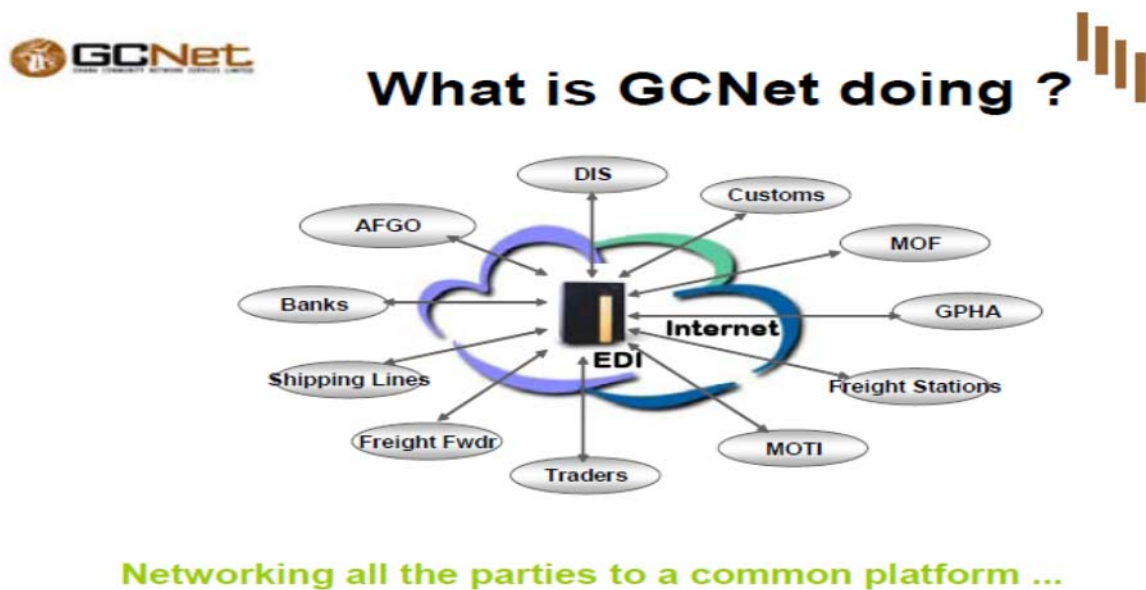
APPENDICES

Appendix 1: The normal manual cargo clearance system in Ghana (prior to electronic clearance era)



Source: Omaboe, N.; Darko, E. Public - Private Partnership on Integrated Customs Services in Ghana, 2008

Appendix 2: The electronic cargo clearance system - GCNet (post-manual clearance system era)



Source: Omaboe, N.; Darko, E. Public - Private Partnership on Integrated Customs Services in Ghana, 2008

Appendix 3: The Research Questionnaire

Please answer the questions below by marking the appropriate box:

1. Which of the following factors constitute a major setback to realization of the Gateway Project's objectives?	Strongly Disagree	Disagree	Neither agree Nor Disagree	Agree	Strongly agree
	1	2	3	4	5
Infrastructural constraints	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Institutional bottlenecks(CEPS, DICs, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Political interference	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of funds to execute umbrella projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Misplaced Objectives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The following factors currently militate against efficient trade flow through Ghanaian Seaports.	Strongly Disagree	Disagree	Neither agree Nor Disagree	Agree	Strongly agree
	1	2	3	4	5
Bribery and Corruption	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cumbersome Customs Procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inadequate cargo handling facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Incompetence Among Stakeholders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sabotage by antagonists of the GGWP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of funds for infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3a. The GGWP has made the following achievements since its inception	Strongly Disagree	Disagree	Neither agree Nor Disagree	Agree	Strongly agree
	1	2	3	4	5
Increased the rate of cargo clearance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Made Clearance Less Cumbersome	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improved Revenue Collection Targets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lessen Degree of Physical Cargo Inspections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduce Political (Public) Interference	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Infrastructural Expansion (terminals, road, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increase in volume of Exports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduction in Bribery and corruption	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3b. Rank the achievements stakeholders will prefer the GGWP to attain:	Least Important	Less Important	Important	More Important	Most Important
	1	2	3	4	5
Increase in trade volume	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eradicate Bribery and Corruption	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eliminate Physical Examination of cargo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instil Professionalism in Industry Practitioners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Customs Valuation –related problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eliminate Government Interference	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide more infrastructures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduce cost of doing business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The following factors impact on the speed and efficiency of trading at Ghanaian frontiers	Strongly Disagree	Disagree	Neither agree Nor Disagree	Agree	Strongly agree
	1	2	3	4	5
Numerous trade regulations and requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Excessive Political Interference	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Under manning due to insufficient officials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Low level of competence among trade officials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poor facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. One of the following do not fall under the GGWP's scope:	Strongly Disagree	Disagree	Neither agree Nor Disagree	Agree	Strongly agree
	1	2	3	4	5
Infrastructural Expansion (ports, roads, railways, CFS, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Training and Orientation for Stakeholders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Modernization of Cargo Clearance (IT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Port dwell-time Reduction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Privatization of Port Operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6a. Presently, trade and port officials at Ghanaian trade frontiers can better be described as (please rate from the list below):	Least Important	Less Important	Important	More Important	Most Important
	1	2	3	4	5

Unprofessional (corrupt)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Least Professional(unethical)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Less Professional (indifferent)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Professional (supportive)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
More Professional(reliable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Most Professional (integrity)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6b. As stakeholder of trade facilitation, specifically the GGWP, rank the behaviour pattern you would prefer from trade as well as port officials	Least Important	Less Important	Important	More Important	Most Important
	1	2	3	4	5
Unprofessional (corrupt)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Least Professional(unethical)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Less Professional (indifferent)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Professional (supportive)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
More Professional(reliable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Most Professional (integrity)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Ability of the GGWP to fully meet the objectives for which it was launched is dependent on:	Least Important	Less Important	Important	More Important	Most Important
	1	2	3	4	5
Providing Relevant training to Officials and Stakeholders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Massive Investment in infrastructure (terminals, roads, railways, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Streamlining Cargo Clearance (IT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Privatization of Key Operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Institutional reforms (CEPS, DICs, etc	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Which of the following best describes the perception about corruption among customs, port officials and security agencies within Ghana's port industry over the last 3 years (2006-2009)?	Strongly Disagree	Disagree	Neither agree Nor Disagree	Agree	Strongly agree
	1	2	3	4	5
Don't Know	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Port-related corruption cases have declined	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The situation has worsened	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The situation remains the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. What is your business type? ☐ Shipper ☐ Freight Forwarder ☐ Logistics Provider
☐ Terminal Operator ☐ Shipping Line ☐ Other (please specify).....

Thank you very much for filling this questionnaire. Your response will be kept strictly confidential and will be used solely for academic purposes. If you would like to request the research findings or have any enquiry, please contact the researcher - Livingstone Divine Caesar on Tel: +233 (0)242060437; email: livingstonecaesar@yahoo.co.uk; Postal Address: Box AN 10121, Accra-North, Ghana.

Appendix 4: Research Covering Letter (distributed alongside the questionnaire to respondents)

P.O. BOX AN 10121,
Accra-North,
Ghana-West Africa

9th July, 2010.

Dear Sir/Madam,

RESEARCH QUESTIONNAIRE COMPLETION REQUEST

I am a postgraduate student of the Netherlands Maritime University (NMU) studying for the award of Masters in Shipping and Transport (MST). As part of the requirements of the programme, I am researching on a topic entitled “**Trade Facilitation in Seaports – A Thorough Survey of the Ghana Gateway Project**”.

Towards this end, I would want to crave your indulgence to enable me complete the enclosed questionnaire which is tailored to facilitate investigation of the topic. I promise your identity and response would be held strictly confidential. I will gladly call on your outfit to collect the completed question 3 weeks after the submission date.

Please do not hesitate to contact me if you have any enquiry regarding the questionnaire.

Thank you in anticipation of your profound co-operation.

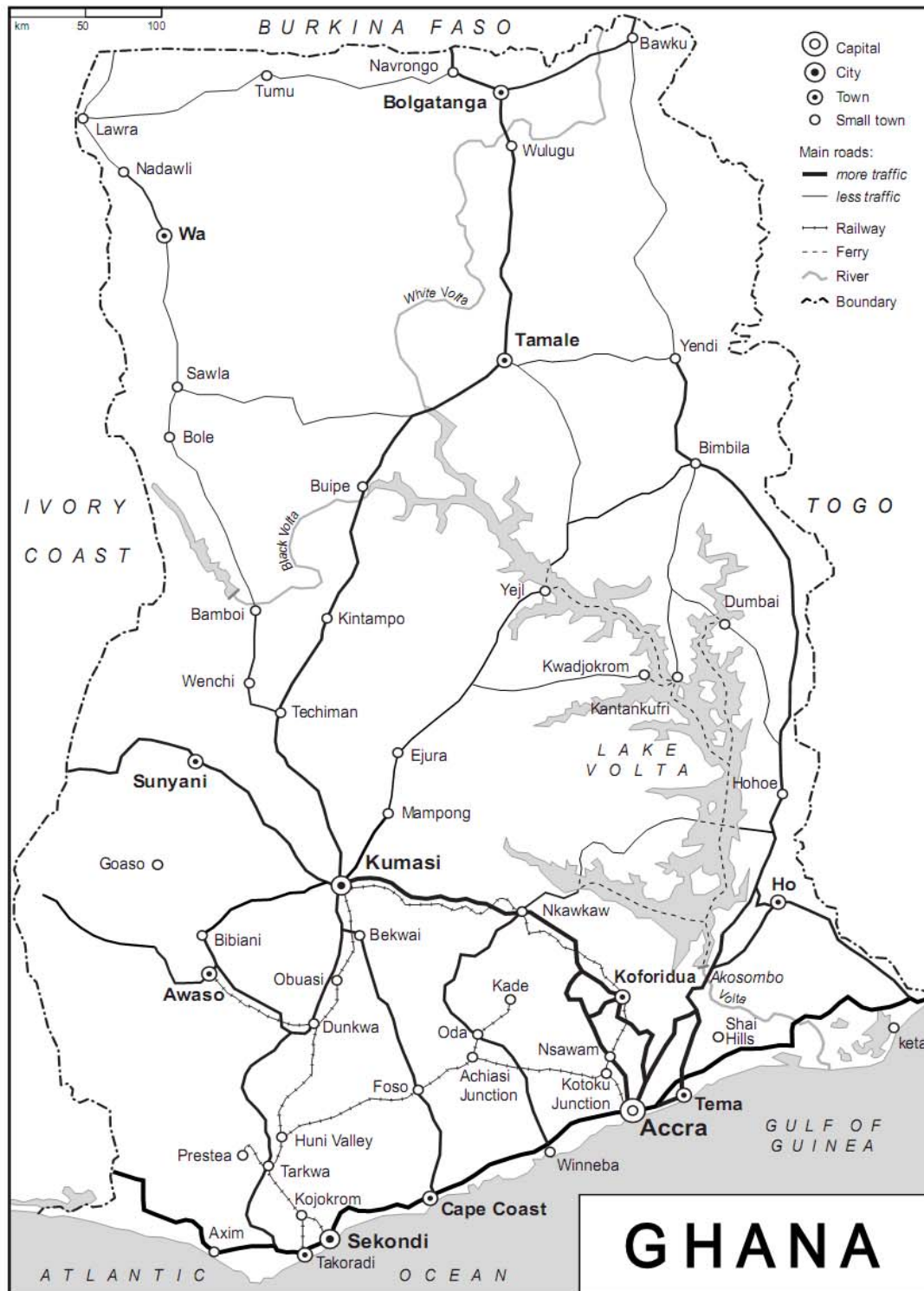
Yours sincerely,

Livingstone Divine Caesar

Tel: +233 (0)242060437

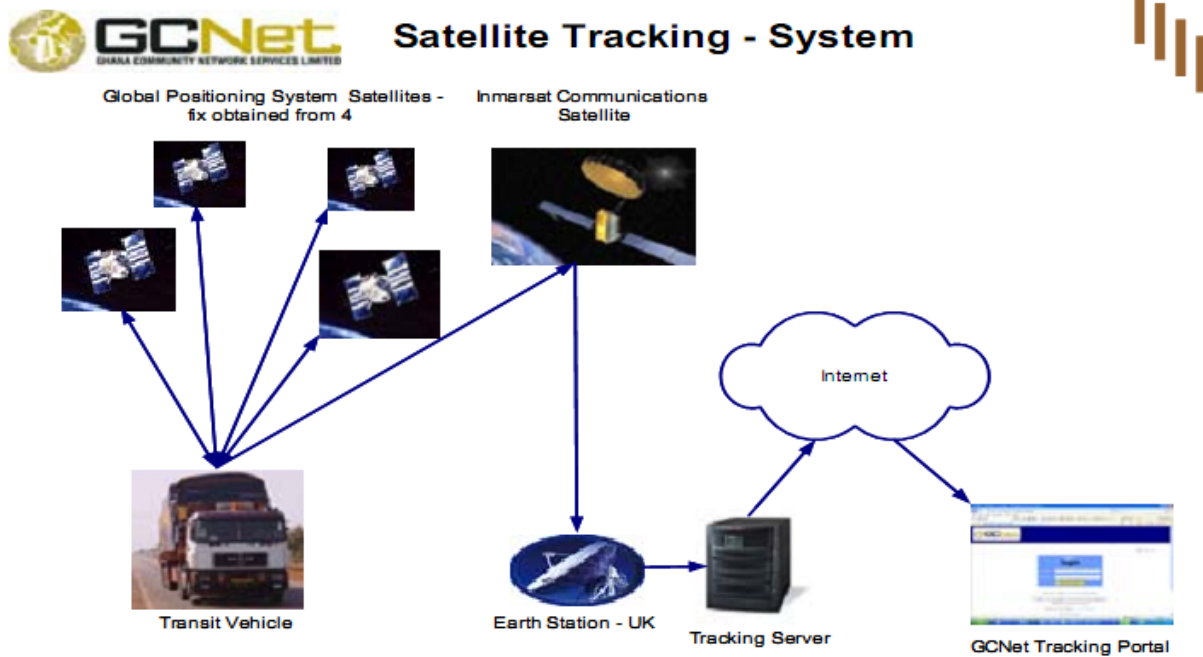
Email: livingstonecaesar@yahoo.co.uk

Appendix 5: Map of Ghana showing the location of seaports, main transport infrastructure, surrounding countries and main border crossings



Source: Pedersen, 2001.

Appendix 6: Satellite Tracking System for Transit Goods – for quick transit time



Source: Omaboe, N.; Darko, E. Public - Private Partnership on Integrated Customs Services in Ghana, 2008

Appendix 7a Business sector Cross - tabulation

		Business Sector					
		Freight Forwarder	Logistics Service Provider	Shipper	Shipping Line	Terminal Operator	Total
Institutional Bottlenecks (CEPS, DICs)	Disagree	5	2	2	0	1	10
	Neither agree nor disagree	2	0	0	0	0	2
	Agree	3	1	3	1	3	11
	Strongly agree	1	0	1	5	0	7
Total		11	3	6	6	4	30

Source: Author

67% (i.e. $4/11 \times 100$) of shippers and 36% (i.e. $4/11 \times 100$) of freight forwarders agree to the proposition that institutional failure has affected the GGWP.

Appendix 7b Business sector Cross – tabulation

		Business Sector					
		Freight Forwarder	Logistics Service Provider	Shipper	Shipping Line	Terminal Operator	Total
Incompetence among Stakeholders	Disagree	1	1	2	0	0	4
	Neither agree nor disagree	1	0	0	0	1	2
	Agree	7	2	4	1	2	16
	Strongly agree	2	0	0	5	1	8
Total		11	3	6	6	4	30

Source: Author

82% of freight forwarders and 67% of shippers agree to that proposition that incompetence among stakeholders militate against efficient trade flow in Ghana

Appendix 7c Business sector Cross - tabulation

		Business Sector				
		Freight Forwarder	Logistics Service Provider	Shipper	Shipping Line	Terminal Operator
less degree of physical cargo inspections						
	Neither agree nor disagree	0	0	0	0	2
	Agree	2	2	3	4	1
	Strongly agree	9	1	3	2	1
Total		11	3	6	6	4

Source: Author

82% of freight forwarders and 50% of shippers strongly perceive that *less degree of physical cargo inspections* is the main achievement of the GGWP.

Appendix 7d Business sector Cross – tabulation

		Business Sector					
		Freight Forwarder	Logistics Service Provider	Shipper	Shipping Line	Terminal Operator	Total
low level of competence among trade officials	Agree	3	2	2	0	1	8
	Strongly agree	8	1	4	6	3	22
	Total	11	3	6	6	4	30

Source: Author

73% of freight forwarders and 67% of shippers agree to that *low level of competence among trade officials* a bearing on trade facilitation through Ghana's port system